

IRIDIUM—*continued.*

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity			
Kayser	Exner and Haschek		Exner and Haschek	and Character	$\lambda +$	$\frac{1}{\lambda} -$	
			2300·8	1	0·69	13·1	43450·
			00·5	1	"	"	56·
	2300·11	1			"	"	63·1
			2299·8	1	"	"	69·
			97·3	2	"	"	43516·
			96·3	1	"	"	35·
	2295·19	1	95·2	1	"	"	56·3
			94·5	1	"	"	69·
			93·7	1	"	"	85·
			92·5	1	"	"	43607·
			91·8	1	"	"	21·
			91·0	4	"	"	36·
			89·5	2	"	"	65·
			88·3	2	"	13·2	87·
			87·0	2	"	"	43712·
			85·7	1	"	"	37·
			84·6	1	"	"	58·
			81·7	2	"	"	43814·
			81·2	2	"	"	23·
			80·6	2	"	"	35·
			78·5	1	"	"	75·
			77·7	1	0·68	"	91·
			77·3	1	"	"	98·
			77·1	1	"	"	43902·
			76·3	1	"	"	18·
			75·6	1	"	13·3	31·
			72·5	ln	"	"	91·
			71·4	2	"	"	44012·
			68·9	2	"	"	61·
			68·5	2	"	"	69·
			68·1	1	"	"	76·
			67·8	1	"	"	82·
			65·3	2	"	"	44131·
	64·73	1	64·7	ln	"	"	42·1
			63·0	ln	"	13·4	76·
			62·4	ln	"	"	87·
			62·2	1	"	"	91·
			59·3	2	"	"	44248·
	59·00	1			"	"	54·0
			58·8	1	"	"	58·
			58·4	2	"	"	66·
			57·5	2	"	"	83·
			57·1	2	"	"	91·
			56·5	1	"	"	44303·
			56·0	1	"	"	13·
			55·5	1	"	"	23·
	55·22	1	55·3	1	"	"	28·2
	53·60	ln			"	"	60·0
			53·3	1	"	"	66·
			52·0	1	"	"	92·
			51·5	1	"	"	44401·
			50·7	1	"	13·5	17·
			49·4	1	"	"	43·
			48·8	1	"	"	55·

IRIDIUM—continued.

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo	
Wave-length		Intensity and Character	Wave-length	Intensity				
Kayser	Exner and Haschek		Exner and Haschek	and Character	$\lambda +$	$\frac{1}{\lambda}$		
	2242·80	2	2247·7	1	0·68	13·5	44476·	
			46·7	2	"	"	96·	
			45·5	2	"	"	44520·	
			43·8	1	"	"	54·	
			42·6	4	"	"	73·6	
			40·5	1	"	"	44610·	
			38·7	1	"	13·6	55·	
			38·3	2	"	"	63·	
			38·1	1	"	"	67·	
			37·1	2	"	"	87·	
			36·3	1	"	"	44703·	
			34·3	1	"	"	43·	
			34·0	1	"	"	49·	
			33·2	1	"	"	65·	
			32·0	1	"	"	89·	
			24·2	1	"	0·67	13·7	44946·
			20·6	ln	"	"	"	45019·
			19·3	1	"	"	"	46·
			18·9	1	"	"	"	54·
			12·4	1	"	"	13·8	45186·
			11·2	1	"	"	"	45211·
			10·2	ln	"	"	"	31·
			08·7	ln	"	"	"	62·
			05·0	2	"	"	"	45338·
			2197·5	1	"	"	13·9	45492·
			96·1	1	"	"	"	45521·
			92·2	1	"	"	14·0	45602·
			90·3	2	"	"	"	42·
			87·0	1	"	"	"	45711·
			78·5	1	"	0·66	14·1	45889·
			69·3	1	"	"	14·2	46184·
			52·6	1	"	"	14·3	46441·
			51·7	1	"	"	"	61·

LIBRARY
OF THE
UNIVERSITY OF CALIFORNIA.

Class

3
W 353

app. 3

GENERAL

INDEX OF SPECTRA

APPENDIX S

BY

W. MARSHALL WATTS

D.Sc.(LOND.), B.Sc.(VICT.)



LONDON

WILLIAM WESLEY AND SON

28 ESSEX STREET, STRAND

MANCHESTER

ABEL HEYWOOD & SON

1908

QC453

N 3

Appⁿ

GENERAL

R



APPENDIX S.

STANDARD LINES.

Buisson and Fabry, 'C.R.,' cxliii. p. 165 (1906) ; cxliv. p. 1155 (1907).
 Perot and Fabry, 'C.R.,' cxxxiii. p. 153 (1901).
 Kayser, 'Ann. d. Physik' (4), iii. p. 195 (1900).
 Eversheim, 'Zeitschrift für wissenschaftliche Photographie,' v. 152 (1907).
 Wave-lengths in dry air at 15° C. and 760 mm.

Buisson and Fabry Iron Arc	Perot and Fabry Solar Spectrum	Kayser Iron Arc	Previous Measurements (Solar Spectrum) Rowland
6494·994			6495·209
30·859	6471·666 Ca		71·885
3393·612	08·027 Fe		31·063
35·343			08·231
18·029	6335·346		6393·818
6265·147	22·706 Fe		35·550
30·732			22·912
6191·569	6230·746		18·242
37·700			6265·347
6065·493	6151·639		30·946
27·059	6065·506		6191·770
03·039	16·650 Mn		51·834
5952·739	5987·081 Fe		6065·708
34·683	34·666		27·265
5892·882 Ni			16·856
57·760 Ni	5862·368 Fe		03·245
05·211 Ni			5987·286
5763·013			34·883
60·843 Ni			5893·098
09·396	15·095		62·580
5658·835			05·448
15·658			5763·215
			15·309
			09·616
			5615·879

Note.—The wave-lengths now given by Buisson and Fabry rest on the value 6438·4696, determined by Benoit, Fabry, and Perot for the red line of Cadmium, and those of Perot and Fabry on Michelson's value 5085·8240 for the Cadmium green line.

STANDARD LINES—*continued.*

Buisson and Fabry Iron Arc	Perot and Fabry Solar Spectrum	Kayser Iron Arc	Previous Measurements (Solar Spectrum) Rowland
5586·770	5586·778		5586·991
69·632			69·848
35·418			
06·783	06·794		07·000
5497·521	5497·536		5497·731
55·616			55·826
34·530	34·544		34·742
	09·800 Cr		10·000
05·780			05·987
5371·498			5371·686
	5367·485 Fe		67·670
	45·820		45·991
			24·373
24·196			
02·316			
5266·568			5266·729
	5247·587		47·737
	47·063		47·259
32·958*			33·124
5192·362			
	5171·622 Fe		5171·783
67·492			67·686
27·364			27·530
	23·739		23·889
10·415			10·570
	5090·787 Fe		5090·959
5083·343			
49·827			50·008
12·072			
01·880	01·881		02·044
4966·104			
	4923·943 Fe		4924·109
19·006			19·183
03·324			03·488
4878·226			
59·756†	4859·758		4859·934
23·521 Mn			23·697
4789·657			
	4783·449		4783·601
54·046 Mn			54·226
36·785	36·800		36·963
07·287			
	04·960		05·131
4678·855			4679·028
74·437			
	4643·483		43·645
02·944			
4592·658			
47·854			
31·155			
4494·572‡		4494·755	4494·735 (·756 in arc)
		89·929	
		84·420	
		76·207	
		69·566	
66·554		66·737	

* Eversheim, 5232·9630.

‡ *Idem*, 4494·5812.† *Idem*, 4859·7613.

STANDARD LINES—*continued.*

Buisson and Fabry Iron Arc	Perot and Fabry Solar Spectrum	Kayser Iron Arc	Previous Measurements (Solar Spectrum) Rowland
		4461·838	
		54·572	
		47·907	4447·899 (·912 in arc)
		42·522	
		30·801	
4427·314		27·490	
		15·301	15·299 (·298 in arc)
		04·929	04·927 (·928 in arc)
		4391·137	4391·149
		83·724	83·721
4375·935*		76·104	76·103 (·108 in arc)
		69·954	69·948 (in arc)
		67·759	
		58·689	
52·741		52·910	52·908
		46·739	
		37·219	
		25·941	25·932
15·089		15·255	
		09·542	
		4299·420	
		94·290	
		91·631	
		85·614	
4282·407†		82·567	
		71·933	4271·920
		71·333	
		60·656	60·647
		50·948	50·949
		50·299	50·300
		47·604	
		45·423	
		38·980	
		36·118	
33·615		33·771	
		27·606	
		22·387	22·396
		19·523	
		10·521	
		02·195	02·187
		4199·256	4199·257
4191·441		91·611	
		87·221	
		81·918	
		75·799	
		71·069	
		54·662	
47·677			
		44·033	
		37·156	
34·685			
18·552		18·709	
		14·608	14·600 (in sun)
		07·646	
		4098·346	
		96·135	

* Eversheim, 4375·9435.

† *Idem*, 4282·4125.

STANDARD LINES—*continued*.

Buisson and Fabry Iron Arc	Perot and Fabry Solar Spectrum	Kayser Iron Arc	Previous Measurements (Solar Spectrum) Rowland
		4084.166	
		79.999	
4076.641		71.901	4071.903
		68.138	
		63.755	63.755
		62.605	62.602 (in sun)
		55.706	55.701 (")
		45.978	45.975
		44.776	
		32.796	
		30.670	
21.872		22.029	
		17.303	
		07.429	
		3998.211	
		96.148	
		86.330	
		84.112	
3977.745		77.892	3977.891 (in sun)
		69.411	
		66.219	
		56.823	
		56.610	
		48.927	
		45.269	
		41.032	41.034
35.818		35.966	
		28.073	28.060
		23.059	
		20.404	
		18.467	
		16.880	16.886
		13.784	
		09.980	
06.481		06.624	
		03.097	
		3899.853	
		95.801	
		93.538	
		87.193	
		86.426	3886.421
		78.722	
		78.166	
		72.640	
3865.526		65.670	
		60.054	60.050
		56.515	56.517 (in sun)
		50.114	
43.261		41.194	
		40.586	40.589
		34.370	
		33.463	
		27.967	27.973
		26.028	26.024
		24.591	
		20.573	20.566

STANDARD LINES—*continued.*

Buisson and Fabry Iron Arc	Perot and Fabry Solar Spectrum	Kayser Iron Arc	Previous Measurements (Solar Spectrum) Rowland
		3815·987 13·202 06·847	3815·984
3805·346		01·822 3799·694 98·656 95·149 90·242 88·031 78·670 76·606 70·452 67·339 63·940 58·381	05·487 3799·698 98·662 95·150 88·032 67·344 63·942 58·379
3753·615		49·634 48·409 45·710 43·510 37·278 35·016 33·470 32·541 31·102 27·769 24·527 22·710 20·083 09·395 07·199 05·714 02·180	49·633 48·409 45·701 43·502 37·282 35·075 33·467 32·542 27·763 22·691 20·086 09·397 07·186 05·711
24·379		3695·202 87·609 83·205 80·062	3695·194 87·607 83·202 80·064
3677·628		76·461 69·674 59·673 55·625 51·615 50·429 47·997 40·541 32·195 31·617 30·506 22·158 18·918 17·944 17·474 12·242 09·011	47·995 40·536 31·619 22·147 18·924 17·920 12·217 09·015
40·391			

STANDARD LINES—*continued.*

Buisson and Fabry Iron Arc	Perot and Fabry Solar Spectrum	Kayser Iron Arc	Previous Measurements (Solar Spectrum) Rowland
3606·681		3606·836 05·619 3599·781 94·767 87·137 85·478 81·348 70·257 65·535 58·672	3606·831 05·635 3581·344 70·225 65·528 58·670
3556·879		53·898 45·793 40·287 36·694 29·960 26·822 26·196 21·415 13·974 08·663 08·627 06·650 00·716 3497·989 90·721 85·496 83·159 76·850 75·600 71·497 71·413 66·006 60·067 58·454 50·484 45·301 44·025 41·138 40·762 27·263 24·430 18·649 13·275 06·938 06·578 3399·468 97·117 94·721 89·882 84·113 80·242 78·814	40·266 21·404 13·947 00·721 3497·991 90·721 76·831 75·594 65·991 44·032 41·135 40·759 27·282 (3427·279 in arc) 06·955 06·581 3389·887
13·820			
3485·344			
45·155			
3 99·337			
70·789		67·675 66·993 66·917 55·355	

STANDARD LINES—*continued*.

Buisson and Fabry Iron Arc	Perot and Fabry Solar Spectrum	Kayser Iron Arc	Previous Measurements (Solar Spectrum) Rowland
3323·739		3351·882	3351·877
		48·056	48·011
		42·340	
		42·034	
		37·793	
		28·992	
		25·589	
		17·251	
		14·868	
		06·479	06·471
3271·003		06·106	06·117
		3298·263	
		92·721	
		86·884	
		84·720	
		80·386	
		71·129	
		65·746	
		57·724	
		53·043	
25·790		48·332	
		46·617	
		44·308	
		39·564	
		31·091	
		28·379	
		25·905	3225·923
		22·187	22·203
		16·057	
		14·158	14·152 (in aro)
3175·447		12·112	
		10·953	
		05·513	
		00·595	
		3199·638	
		93·423	
		92·921	
		91·778	
		88·947	
		85·015	
25·661		78·122	
		75·556	
		71·743	
		66·551	
		65·129	
		62·064	
		60·764	
		57·157	
		51·460	
		44·096	
25·661		42·565	
		40·503	
		32·627	
		25·770	
		19·609	
		16·747	
		12·183	

STANDARD LINES—*continued*.

Buisson and Fabry Iron Arc	Perot and Fabry Solar Spectrum	Kayser Iron Arc	Previous Measurements (Solar Spectrum) Rowland
		3100.778	3100.779 (in arc)
		00.418	00.415 "
		00.057	00.064 "
		3095.013	3095.003 "
		91.687	
3075.725		83.853	83.849 (in arc)
		75.830	75.849 "
		68.286	
		67.363	67.363 (in arc)
		64.042	
		59.202	59.200 (in arc)
		57.562	57.557 "
		51.179	
		47.719	47.720 (in arc)
		41.860	
		41.753	
		37.505	37.492
3030.152		31.753	
		25.960	25.958 (in arc)
		24.153	24.154 "
		21.194	21.191 "
		20.764	20.759 "
		20.619	20.611 "
		19.105	19.109 "
		17.747	17.747 (in arc)
		16.305	16.296 "
		09.690	09.696 "
		08.254	08.255 "
		07.409	07.408 "
		07.262	07.260 "
		01.068	01.070 "
		2999.630	2999.632 "
		94.554	94.547 "
		90.511	
2987.293		87.410	87.410 (in arc)
		83.690	83.689 "
		81.565	81.570 "
		76.253	
		73.366	73.358 (in arc)
		73.254	73.254 "
		70.227	70.233 "
		67.019	67.016 "
		65.379	65.381 "
		57.484	57.485 "
		54.061	54.058 "
		48.557	
		47.996	47.993 (in arc)
41.347		41.462	
		37.030	37.020 (in arc)
		29.119	29.127 "
		26.699	
		23.409	
		18.144	
12.157		12.273	12.275 (in arc)
		07.630	
		01.496	
		2899.531	

STANDARD LINES—*continued*.

Buisson and Fabry Iron Arc	Perot and Fabry Solar Spectrum	Kayser Iron Arc	Previous Measurements (Solar Spectrum) Rowland
2874·176		2894·617	
		90·000	
		87·920	
		80·867	
		77·414	
		74·284	
		69·418	
		63·973	
		59·007	
		51·910	2851·904
51·800		48·828	
		44·083	44·085 (in arc)
		43·742	43·744 „
		38·231	38·226 „
		35·562	
		32·543	32·545 (in arc)
		25·803	
		25·660	25·667 (in arc)
		23·382	23·389 „
		17·612	
13·290		13·391	13·388 (in arc)
		07·088	
		04·622	
		2797·877	
		91·989	
		88·207	2788·201 (in arc)
		81·936	81·945 „
		78·327	78·340 „
		72·205	72·206 „
		68·621	68·630 „
2778·225		62·125	62·110 „
		61·883	61·876 „
		57·413	
		56·412	56·427 (in arc)
		55·834	55·837 „
		50·238	50·237 „
		47·080	
		46·580	
		45·177	
		44·624	
39·550		44·163	
		42·506	42·485 „
		42·349	
		39·639	
		37·407	37·405 (in arc)
		35·566	
		33·978	33·973 „
		30·832	
		28·914	
		25·024	
14·419		23·671	23·668 (in arc)
		20·997	20·989 „
		19·121	19·119 „
		18·530	
		14·503	
		08·663	
		06·672	06·684 (in arc)
		2699·193	

STANDARD LINES--*continued.*

Buisson and Fabry Iron Arc	Perot and Fabry Solar Spectrum	Kayser Iron Arc	Previous Measurements (Solar Spectrum) Rowland
2679-065		2690-153 89-302 80-544 79-148 73-315 69-581 66-897 56-232 51-800 47-649 44-085 35-899 31-139	2679-148 (in arc)
28-296		28-383 25-754 23-627 20-499 18-108 17-706 13-914 11-963 07-155 06-920	31-125 (in arc)
2588-016		2599-663 99-483 98-456 88-102 85-964 84-623 82-408 78-012 75-845 74-462 67-001 62-619 56-963 51-192 49-708 46-072 44-016 42-192 41-064 37-263 35-699 33-911 29-928 29-223	11-965 (in arc) 2599-494 (in arc) 98-460 „ 84-629 (in arc)
62-541		27-525 24-393 23-754 22-950 18-198 17-754 11-857 10-927 07-991	49-704 (in arc) 46-068 „ 41-058 (in arc) 35-648 „
28-516 Si			28-599 Si 27-530 „
06-904 Si			22-948 (in arc) 18-188 „ 10-934 (in arc) 06-944 Si

STANDARD LINES—*continued.*

Buisson and Fabry Iron Arc	Perot and Fabry Solar Spectrum	Kayser Iron Arc	Previous Measurements (Solar Spectrum) Rowland
		2501.228	2501.223 (in arc)
		2496.625	
		93.331	
		91.249	2491.244 (in arc)
		90.737	90.723 "
		89.844	89.838 "
		88.232	88.238 "
		87.155	
		84.280	84.283 (in arc)
		83.618	
		83.361	83.359 "
		79.872	79.871 "
		74.906	
		72.976	72.974 (in arc)
		72.436	
		68.974	
		65.244	
		62.740	62.743 (in arc)
		62.279	
		57.686	57.680 (in arc)
		53.568	
		47.808	47.785 (in arc)
		42.658	
		40.201	
		39.834	
		38.274	
2435.159 Si		31.126	
		24.231	
13.310		13.393	
		11.152	
		10.601	10.604 (in arc)
		06.742	06.743 "
		04.969	04.971 "
		04.519	
		2399.322	2399.328 (in arc)
		95.709	95.715 "
		90.058	
		88.711	88.710 (in arc)
		84.473	
		83.324	
		82.114	82.122 (in arc)
		80.840	
		79.355	
		75.273	
2373.737		73.813	73.771 (in arc)
		68.670	
		64.904	64.897
		59.187	
		54.969	
		48.380	48.385 (in arc)
		48.196	
		43.567	43.571 (in arc)
		32.869	
		31.384	
		27.468	

IRIDIUM.

Exner and Haschek, 'Sitz. kais. Akad. Wissensch. Wien,' civ. 953, 1895; cv. 542, 1896.

Kayser, 'Abhandl. königl. Wissensch. Berlin,' 1897.

Exner and Haschek, 'Wellenlängen-Tabellen der Bogenspektren der Elemente,' Leipzig und Wien, 1904.

Lohse, 'Astrophys. Obs. Potsdam,' xii. p. 163 (1902).

Adeney, 'Photographs of Ultra-violet Spark-spectra,' 'Trans. Roy. Dublin Soc.' (2), vii. 331.

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character			
Kayser	Exner and Haschek		Exner and Haschek		$\lambda +$	$\frac{1}{\lambda}$	
5894.324		2			1.61	4.6	16960.9
5625.772		3			1.53	4.8	17770.5
20.266		1			"	"	88.0
5469.648		1			1.49	5.0	18277.7
54.724		2			"	"	18324.4
49.716		4			"	"	44.6
5364.507		2			1.47	5.1	18656.0
57.081		0			1.46	"	61.8
40.932		1			"	"	18718.2
5239.091		1			1.43	5.2	19082.1
5178.128		1			1.42	5.3	19306.7
5050.001		0			1.38	5.4	19796.6
46.227		0			"	"	19811.4
09.323		0			1.37	5.5	19957.3
02.874		1			"	"	83.0
4999.898		2			"	"	94.9
70.629		0			1.36	"	20112.7
39.311		0			1.35	5.6	20240.1
38.225		1			"	"	44.6
4845.539		0			1.33	5.7	20631.8
40.934		2			1.32	"	51.5
09.636		2			"	"	20785.9
07.302		0			"	"	96.0
4795.827		3			1.31	"	20845.8
78.330		4			"	5.8	20922.0
58.107		2			1.30	"	21011.0
56.613		4			"	"	17.6
32.014		1			"	"	21126.8
29.005		4			1.29	"	40.3
09.034		2			"	"	21230.0
02.751		0			"	5.9	58.2
			4696.0	1	"	"	21289.
			94.0	1	"	"	98.
			92.7	1	1.28	"	21304.
			83.8	1	"	"	44.
			83.0	1	"	"	48.
			81.5	1	"	"	55.
			78.6	1	"	"	68.
			74.2	ln	"	"	89.
			73.4	ln	"	"	92.
			72.0	ln	"	"	98.
			71.4	ln	"	"	21401.
			69.7	ln	"	"	09.
			69.4	ln	"	"	10.
4669.130		2			"	"	11.4

IRIDIUM—continued.

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character			
Kayser	Exner and Haschek		Exner and Haschek		$\lambda +$	$\frac{1}{\lambda} -$	
4656·329		4	4665·0	1n	1·28	5·9	21430·
			56·5	1	"	"	69·
			55·9	1n	"	"	70·2
			55·4	1n	"	"	72·
			54·9	1n	1·27	"	74·
			54·4	1n	"	"	77·
40·231	4616·55	2	50·7	1	"	"	79·
			40·3	1n	"	"	96·
			27·5	1n	"	6·0	21544·8
16·549		4	16·6	2	1·26	"	21604·
14·342		0			"	"	21655·2
4570·183 68·246	4568·30	2 3n			"	"	65·6
			04·7	1	"	"	21711·
			4586·5	1n	"	"	97·
			85·7	1n	"	"	21801·
			84·5	1n	"	"	07·
			82·0	1	"	"	19·
			79·5	1n	1·25	"	30·
			70·5	1n	"	"	73·
			70·1	1	"	"	75·0
			68·2	2	"	"	84·1
			65·0	1n	"	6·1	21900·
			64·2	1	"	"	04·
			61·0	1	"	"	19·
			58·7	1	"	"	30·
			58·0	1	"	"	33·
			54·7	1	"	"	49·1
			54·2	1	"	"	52·
			52·5	1n	"	"	60·
			50·9	1	"	"	67·4
			48·645	48·64	3n	48·7	2
45·837	45·84	3	45·8	2	"	"	92·0
38·819 33·003		1 2	43·0	1	1·24	"	22006·
			42·4	1	"	"	09·
			39·3	1	"	"	24·
			38·7	1	"	"	26·1
			34·5	1b	"	"	47·
			33·0	1	"	"	54·3
			15·3	1n	"	"	22141·
			14·4	1n	"	"	45·
			12·0	1	"	"	57·
			11·0	1b	"	"	62·
			09·0	1n	"	"	72·
			05·7	1n	1·23	"	88·
			05·1	1n	"	"	91·
			01·7	1n	"	"	22208·
			01·0	1n	"	"	11·
4496·200	4495·52	1	4496·1	1	"	6·2	34·8
95·525		2	95·4	2	"	"	38·2
92·333		1	92·3	1	"	"	53·9
91·523		2	91·4	2	"	"	58·0
			84·0	1n	"	"	95·
78·649	78·65	3	82·1	1	"	"	22305·
			78·4	4	"	"	22·0
			70·5	1n	"	"	63·

IRIDIUM—continued.

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\lambda -$	
Kayser	Exner and Haschek		Exner and Haschek				
4452·987	4450·41	1	4467·4	1b	1·22	6·2	22378·
			66·8	1	"	"	81·
			60·0	1	"	"	22415·
			58·2	1	"	"	24·
			52·9	1	"	"	50·6
			52·7	1n	"	"	52·
			51·4	1	"	"	59·
			50·9	1	"	"	61·
50·346	4450·41	1n		"	"	63·6	
49·540		2	50·2	1	"	63·9	
0				"	"	68·0	
	26·45	5	44·0	1n	"	"	96·
			43·1	1	"	"	22501·
26·459			26·5	4	1·21	6·3	85·1
25·936					"	"	87·8
22·121			22·0	1	"	"	22607·3
11·344	2	2	21·3''	1n	"	"	12·
			11·2	1	"	"	62·5
			10·5	1	"	"	67·
06·926	03·98	0	06·9	1	"	"	85·3
03·952		3	04·0	2	"	"	22700·5
			01·4	1	"	"	14·
4399·645	4399·68	4	4399·7	6	"	"	22·7
92·758	92·80	2	92·8	1	1·20	"	58·3
			90·4	1n	"	"	71·
			88·5	1	"	"	81·
			88·1	1	"	"	83·
			81·2	1n	"	"	22819·9
80·930		1	80·4	1	"	"	23·
			80·0	1	"	"	25·
77·175		3	77·2	1	"	"	39·6
76·575		0	76·6	1	"	"	42·6
			74·9	1	"	"	51·
			73·8	1n	"	"	57·
			73·0	1n	"	"	61·
			72·3	1	"	"	65·
			72·0	1n	"	"	67·
			69·2	1n	"	"	81·
62·289		1			"	6·4	22917·3
			61·3	1	"	"	23·
			60·9	1	"	"	25·
			60·2	1	"	"	29·
			59·6	1	"	"	32·
			58·4''	1n	"	"	38·
			55·8	1n	1·19	"	52·
			54·3	1n	"	"	59·
			53·5	1	"	"	64·
52·720		2	52·7	1	"	"	67·7
51·462		1			"	"	74·4
			48·1	1n	"	"	92·
			43·7	1b	"	"	23016·
			42·2	1n	"	"	23·
			39·6	1b	"	"	37·
32·490		0			"	"	75·0
30·060		0	30·0	1	"	"	88·0

IRIDIUM—continued.

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda} -$	
Kayser	Exner and Haschek		Exner and Haschek				
			4328.8	1b	1.19	6.4	23095.
			24.7	1			23117.
4316.456		1	16.6	1	1.18	"	60.7
			14.0	1n	"	"	74.
			13.2	1	"	"	78.
11.669	4311.68	4	11.7	6	"	"	86.4
			11.5	2	"	"	87.
10.750	10.76	3			"	"	91.4
			08.3	1	"	6.5	23205.
	06.10	1	06.2	1	"	"	16.4
05.359		0	05.4	1	"	"	20.4
01.776	01.79	3	01.8	4	"	"	39.7
00.802		1	00.9	1	"	"	45.0
			4297.7	1	"	"	62.
			95.8	1	"	"	72.
4286.776	4286.79	1	86.7	1	"	"	23321.0
			86.0	1n	"	"	25.
			86.2''	1n	"	"	24.
			79.0	1	1.17	"	63.
			76.7	1b	"	"	76.
			74.8	1	"	"	86.
69.101		0	69.0	1	"	"	23417.6
68.251	68.25	5	68.3	6	"	"	22.3
66.532		0	66.5	1n	"	"	31.7
65.450	65.47	1n			"	"	37.6
			65.3	1	"	"	39.
62.051		0	62.0	1	"	"	56.4
61.408		2	61.3	1	"	"	59.9
			60.2	1	"	"	67.
59.280	59.26	3	59.2	2	"	"	71.7
57.528		2	57.5	1	"	"	81.3
			49.0	1n	"	6.6	23528.
			47.5	1	"	"	37.
			47.2	1	"	"	38.
43.944		0			1.16	"	56.4
41.198		0			"	"	71.6
40.644		0			"	"	74.7
30.486		0			"	"	23631.3
			27.6	1	"	"	48.
			26.9	1	"	"	51.
			25.5	1	"	"	59.
23.327		0			"	"	71.4
			22.2	1n	"	"	78.
			21.5	1	"	"	82.
	21.25	1			"	"	83.1
20.950		2	20.8	1	"	"	84.7
			18.9	1	"	"	96.
18.428		1	18.3	1	"	"	98.9
18.243		0			"	"	99.9
17.908		2	17.8	1	"	"	23701.8
			15.2	1n	"	"	17.
			14.6	1	"	"	20.
			13.4	1	"	"	27.
			12.6	1	"	"	32.
12.383		2			"	"	32.9

IRIDIUM—continued.

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity			
Kayser	Exner and Haschek		Exner and Haschek	and Character	$\lambda +$	$\frac{1}{\lambda} -$	
4212.197		0	4212.1	1	1.16	6.6	23734.0
			11.2	1	"	"	40.
			10.7	1b	"	"	42.
			09.7	1	"	"	48.
			06.7	1b	"	"	65.
			02.5	1b Fe ?	1.15	"	89.
00.031	4200.07	2	00.1	1	"	6.7	23802.7
			4197.8	1	"	"	15.
			95.8	1b	"	"	27.
			93.0	1	"	"	43.
			83.4	2	"	"	97.
4182.626	4182.62	1n	82.7	2	"	"	23901.7
			81.8	1n	"	"	06.
72.736	72.81	2	72.8	2	"	"	57.2
			66.9	1	1.14	"	92.
66.224	66.22	3	66.3	2	"	"	95.9
			65.3	1	"	"	24001.
			63.8	1	"	"	10.
			63.5	1	"	"	12.
			62.3	1n	"	"	18.
			61.7	1n	"	"	22.
			61.1	1n	"	"	25.
			58.2	1	"	"	42.
	55.90	1n	55.8	2	"	"	55.5
			51.4	1	"	"	82.
			39.3	1	"	6.8	24152.
			38.3	1	"	"	58.
			37.8	1	"	"	61.
			36.5	1b	"	"	68.
			29.6	1	1.13	"	24209.
			29.2	1	"	"	11.
			28.5	1	"	"	15.
			28.0	1	"	"	18.
			27.6	1	"	"	20.
			26.6	1	"	"	26.
			26.2	1	"	"	29.
			23.2	1n	"	"	46.
			17.5	1	"	"	80.
			16.7	1	"	"	84.
			16.4	1	"	"	86.
15.957	15.95	3	15.8	4	"	"	88.9
			13.8	1	"	"	24302.
			10.3	1n	"	"	22.
			08.4	1	"	"	34.
			08.3	1n	"	"	34.
			07.8	1	"	"	37.
	04.35	1			"	"	57.6
			00.3	1n	"	"	82.
4092.767	4092.79	2	4092.6	4	1.12	6.9	24426.4
			91.6	1n	"	"	33.
			90.3	1b	"	"	41.
			89.6	1	"	"	45.
			86.0	1	"	"	67.
82.542		1	82.6	1	"	"	87.6
			82.3	1	"	"	89.

IRIDIUM—continued.

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character			
Kayser	Exner and Haschek		Exner and Haschek		$\lambda +$	$\frac{1}{\lambda} -$	
4081.564		0	4081.5	1	1.12	6.9	24493.5
80.737	4080.75	2	80.6	1	"	"	98.5
			78.2	1	"	"	24514.
75.774	75.76	2	75.7	1	"	"	28.4
72.532		2	72.4	2	"	"	47.8
70.822	70.88	2	70.7	2	"	"	57.9
70.067	70.10	3	70.0	6	"	"	62.6
			68.5	1	"	"	72.
			68.2	1	"	"	74.
			66.8	1b	"	"	82.
			65.0	1	"	"	93.
			64.4	1	"	"	97.
			62.5	1	"	"	24608.
			62.1	1	"	"	11.
59.377	59.43	1n	59.3	2	"	"	27.3
			59.2	1	"	"	28.
			56.9	1	"	"	42.
56.620	56.65	1n	56.5	2	"	"	44.1
55.833		0	55.7	1n	"	"	48.9
			55.4	1n	"	"	52.
			54.1	1n	1.11	"	59.
			53.8	1n	"	"	61.
			53.2	1n	"	"	65.
			51.9	1	"	"	73.
51.538		0	51.5	1n	"	"	75.1
51.071		2	51.0	1	"	7.0	77.8
	50.81	1n			"	"	79.4
48.782		0			"	"	91.8
			47.6	1	"	"	99.
			47.1	1	"	"	24702.
			46.6	1	"	"	05.
			45.2	1	"	"	14.
			44.0	1n	"	"	21.
			43.2	1n	"	"	26.
			41.4	2	"	"	37.
					"	"	41.9
40.578		1			"	"	44.1
40.224	40.24	3	40.3	2	"	"	82.8
33.923	33.91	3	33.8	4	"	"	93.
			32.2	1	"	"	97.
			31.6	1	"	"	24801.
			31.0	1	"	"	04.
			30.5	1	"	"	11.
			29.4	1n	"	"	35.
			25.5	1	"	"	56.
			22.1	1	"	"	59.
			21.6	1	"	"	67.4
20.194	20.20	4	20.0	6	"	"	69.
			16.6	1	"	"	90.
			15.7	1	1.10	"	95.
			15.3	1	"	"	98.
			13.8	1	"	"	24907.
			11.6	1	"	"	21.
			11.3	1	"	"	23.
			09.0	1	"	"	37.

IRIDIUM—continued.

Arc Spectrum			Spark Spectrum				Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda} -$	
Kayser	Exner and Haschek		Exner and Haschek		Lohse				
			3964.5	1			1.09	7.1	25217.
3962.926		2	63.0	1	3963.78	0.4	"	"	21.3
				63.00	0.1	"	"	26.5	
				61.66	0.1	"	"	34.9	
				61.24	0.1	"	"	37.5	
				60.6	1	60.63	0.1n	"	"
					59.03	0.4	"	"	51.6
56.262		0	56.8	1			"	"	66.
						"	7.2	69.2	
				56.09	1.5b	"	"	70.3	
					54.60	0.8b	"	"	79.8
52.099	3952.15	0	52.7	1	52.85	0.3n	"	"	91.0
		1	52.0	4	52.12	1.0	"	"	95.6
			52.1	1			"	"	
50.259		0			50.34	0.3n	"	"	25307.4
48.459	48.47	1n			49.42	0.1	"	"	13.0
					48.45	0.3	"	"	19.2
46.420	46.40	4	46.4	4	46.44	1.1	"	"	32.2
			45.7	1	45.74	0.6	"	"	37.6
					45.22	0.2n	"	"	39.9
44.534	44.52	1n	44.5	1	44.50	0.2	"	"	44.4
44.534	44.52	1n	44.5	1	44.50	0.2	"	"	44.4
			43.4	1			"	"	52.
					42.83	0.1	"	"	55.3
					42.15	0.1	"	"	59.7
41.242		0	41.2	1			"	"	66.
			38.5	1n	38.70	0.2	"	"	81.9
			37.8	1n			"	"	88.
			36.6	1n			"	"	95.
35.005	34.99	3	35.0	4	35.00	1.2	"	"	25405.8
34.063		2u	34.0	2			"	"	11.8
			32.3	1			"	"	23.
31.903		0	32.0	1	31.93	0.6	"	"	25.7
					31.34	0.1	"	"	29.4
			29.0	1			"	"	45.
			28.6	1	28.55	0.1	"	"	47.5
					27.28	0.1	"	"	55.7
	26.05	1n	26.1	1	26.07	0.9	"	"	63.6
			25.5	1			"	"	67.
					25.35	0.1	"	"	68.2
24.573	24.55	1n	24.6	1	24.66	0.1	"	"	73.1
			24.1	1			"	"	76.
23.634	23.63	1	23.7	1	23.63	0.9	"	"	79.4
					23.10	0.3	"	"	82.8
			21.1	1	21.02	0.1	"	"	96.4
					19.25	1b	"	"	25507.9
			18.3	1			"	"	14.
			16.8	1			"	"	24.
15.538	15.53	3	15.6	6	15.53	1.8	"	"	32.1
15.055	15.06	1	15.1	1	15.08	0.2	"	"	35.1
			14.5	1	14.46	0.1	"	"	39.1
			14.0	1			"	"	42.
			13.4	1			"	"	46.

IRIDIUM—continued.

Arc Spectrum			Spark Spectrum				Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Exner and Haschek		Exner and Haschek		Lohse				
3909-219		0	3912.6	1n	3912.23	0.6b	1.08	7.2	25553.7
			11.7	1			"	"	57.
			11.2	1			"	"	60.
			10.6	1			"	"	64.
			09.7	1			"	"	70.
					09.25	0.5	"	"	73.2
			07.6	1n	07.85	0.2b	"	7.3	82.2
02.807 02.632	3902.78 02.65	2 4	06.9	1n	06.50	0.2	"	"	89.7
			06.0	1			"	"	94.
					05.64	0.2	"	"	96.7
			04.3	1n	04.48	0.1n	"	"	25604.3
					02.97	0.2	"	"	15.0
			02.7	8	02.68	2.0	"	"	16.3
			01.5	1n	01.82	0.1	"	"	21.8
					01.40	0.1	"	"	24.5
			01.0	1	00.95	0.2	"	"	27.5
			00.0	1n			"	"	34.
3889-715		0			3899.37	0.3	"	"	37.9
					99.06	0.1n	"	"	40.0
			3898.5	1n	98.57	0.1n	"	"	43.1
					97.99	0.1n	"	"	46.9
					97.40	0.1n	"	"	50.8
					96.61	0.1n	1.07	"	56.0
			95.6	6	95.73	3	"	"	61.8
					95.07	0.3n	"	"	66.2
			94.0	1n			"	"	68.
			94.0	1n	94.00	0.1n	"	"	73.2
					93.49	0.1n	"	"	76.6
			93.0	1n			"	"	80.
			92.2	1n	92.32	0.4	"	"	84.3
					92.14	0.4	"	"	85.5
					91.56	0.1	"	"	89.3
			90.3	1	90.39	0.1n	"	"	97.1
			89.6	1	89.72	0.2	"	"	25701.5
			89.1	1			"	"	06.
			87.5	1	87.88	0.1n	"	"	13.7
			86.0	1			"	"	26.
85.5	1	85.58	0.1	"	"	28.9			
84.7	1	84.86	0.1n	"	"	33.6			
84.3	1n	84.29	0.1n	"	"	37.4			
83.3	1n			"	"	44.			
82.5	1n	82.44	0.6b	"	"	49.7			
81.0	1n			"	"	59.			
		80.89	0.1n	"	"	60.0			
79.6	1			"	"	69.			
		79.19	0.1n	"	"	71.3			
78.0	1			"	"	79.			
		77.46	0.1n	"	"	82.8			
77.1	1			"	"	85.			
		76.93	0.4	"	"	86.3			
75.5	1n	75.93	0.1b	"	"	93.0			
75.0	1			"	"	99.			
73.7	4	73.74	0.5b	"	"	25807.5			

IRIDIUM—continued.

Arc Spectrum			Spark Spectrum				Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Exner and Haschek		Exner and Haschek		Lohse				
	3873.28	2 Co ?	3873.3	4	3873.31	0.5	1.07	7.3	25810.5
			72.0	1	71.94	0.1n	"	"	19.5
			71.8	1			"	"	20.
			70.9	1			"	"	26.
					70.22	0.2n	"	"	31.0
			69.5	2	69.66	0.3	"	"	34.8
			69.0	1n			"	"	39.
			68.8	1			"	"	41.
	67.92	1			68.00	0.4	"	"	46.1
	65.75	3	65.7	6	65.78	1.0	"	"	60.8
					64.73	0.3n	"	"	67.7
			63.7	1n	63.68	0.1n	"	"	74.8
			63.1	1n			"	"	79.
					62.85	0.4	"	"	80.3
			62.2	4	62.16	0.5b	"	"	85.0
			62.1	1			"	"	85.
			61.5	1	61.44	0.2n	"	"	89.8
					60.84	0.1n	"	"	93.8
			56.8	1	57.71	1.2	"	"	25914.8
			56.7	4	56.62	0.5n	1.06	"	22.1
			56.2	2	56.25	0.2	"	"	24.6
			54.8	1n	54.87	0.1n	"	"	33.9
					54.12	0.1n	"	"	39.0
			52.6	1n			"	"	49.
			50.8	1n			"	"	61.
					50.58	0.3n	"	"	62.8
			50.1	1n			"	"	66.
			49.0	1	49.00	0.4	"	"	73.5
			48.5''	1n	48.31	0.1n	"	"	78.1
			47.5	1	47.41	0.2n	"	"	84.2
					46.82	0.1n	"	"	88.2
			46.0	1	46.07	0.2n	"	"	93.3
			45.1	1	45.16	0.1n	"	"	99.4
			44.7	1			"	"	26003.
					43.05	0.2n	"	"	13.7
			42.8	1n			"	"	15.
			42.2	1			"	"	19.
			41.8	1			"	"	22.
			39.6	1			"	"	37.
			39.2	2n	39.15	0.5b	"	"	40.1
			37.7	2	37.86	0.1	"	"	48.9
					36.21	0.1n	"	"	60.1
			35.8	1			"	"	63.
			35.2	1	35.26	0.2n	"	"	66.5
			32.7	1	34.06	0.1	"	"	74.7
					32.47	0.1n	"	"	85.5
			31.9	1	31.74	0.5b	"	"	90.5
			31.6	1			"	"	91.
			30.5	2	30.48	0.4n	"	"	99.1
			29.8	1b			"	"	26104.
					28.61	0.2n	"	"	11.8
			27.1	1	27.05	0.2n	"	"	22.5
			26.0	1			"	"	30.

IRIDIUM—*continued*.

Arc Spectrum			Spark Spectrum				Reduction to Vacuum		Oscillation Frequency in Vacuo	
Wave-length		Intensity and Character	Wave-length	Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$		
Kayser	Exner and Haschek		Exner and Haschek		Loibse					
3817·385	3825·2	2b	3825·2	1n	3825·13	0·2n	1·06	7·3	26135·3	
					24·62	0·4	”	”	39·1	
			23·5	1	23·50	0·3n	”	”	46·7	
					22·32	0·4	”	”	54·9	
					21·58	0·1n	”	”	59·9	
					20·99	0·1n	”	”	63·9	
			20·0	1n	19·95	0·1n	”	”	71·0	
					19·52	1n	”	”	74·0	
			19·2	1n	19·19	0·3	”	”	76·3	
					18·82	0·2	”	”	78·8	
			18·6	1	18·33	0·1	”	”	82·2	
			17·3	4	17·42	1·0	”	7·4	88·4	
					16·59	0·1n	1·05	”	94·0	
			15·7	1	15·70	0·2	”	”	26200·1	
					15·10	0·1n	”	”	04·2	
			14·7	1			”	”	07·	
			14·5	1			”	”	08·	
			13·8	1	13·91	0·2n	”	”	12·4	
			13·0	1			”	”	19·	
			12·8	1	12·89	0·5	”	”	19·4	
					12·40	0·1n	”	”	22·8	
			11·8	1			”	”	27·	
			10·5	1	10·57	0·2b	”	”	35·4	
			10·4	1			”	”	37·	
			09·7	1	09·81	0·1n	”	”	40·6	
			08·3	1n	08·83	0·2	”	”	47·4	
			07·1	1	06·86	0·1n	”	”	61·0	
			04·6	1	06·09	0·1n	”	”	66·3	
		05·44	2n				”	”	70·8	
				04·1	1	04·77	0·1n	”	”	75·4
						04·26	0·1	”	”	78·9
						03·80	0·4	”	”	82·1
						03·00	0·2	”	”	87·6
						02·53	0·2	”	”	90·9
00·243	00·25	10	00·2	8	00·29	2·0	”	”	26306·6	
3799·047	3799·65	2n			3799·51	1·3	”	”	11·3	
	99·05	3	3799·1	4	99·07	1·1	”	”	15·0	
			98·2	1	98·18	0·4	”	”	20·0	
			98·1	1	96·77	0·3	”	”	30·8	
			96·3	1n			”	”	34·0	
					95·97	0·2	”	”	36·3	
94·211					95·56	0·1	”	”	39·2	
	94·20	1	94·1	4	94·18	0·3	”	”	48·4	
	93·95	2	93·9	4	93·95	0·5	”	”	50·3	
					93·40	0·2	”	”	54·2	
			91·6	2			”	”	67·	
					90·67	1·0	”	”	73·2	
					90·29	0·3	”	”	75·8	
			89·6	1	89·67	0·2	”	”	80·1	
					88·67	0·1n	”	”	87·3	
			87·4	1			”	”	96·	
			87·1	1	87·18	0·1n	”	”	97·5	
			86·2	1	86·22	1·0s	”	”	26404·2	

IRIDIUM—*continued*.

Arc Spectrum			Spark Spectrum				Reduction to Vacuum		Oscillation Frequency in Vacuo	
Wave-length		Intensity and Character	Wave-length	Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$		
Kayser	Exner and Haschek		Exner and Haschek		Lohse					
3768·817	3770·89	1			3784·85	0·3n	1·05	7·4	26413·7	
					84·35	0·1n	”	”	17·0	
					82·37	0·9	”	”	31·0	
					81·33	0·3n	”	”	38·3	
							”	”	49·	
							”	”	53·	
					78·85	0·1	”	”	55·7	
					77·73	0·5	”	”	63·5	
					77·14	0·2	”	”	67·7	
					75·32	0·1	1·04	”	80·4	
					74·59	0·2n	”	”	85·5	
							”	”	90·	
					71·76	0·2	”	7·5	26505·3	
					70·86	0·2	”	”	11·5	
							”	”	14·9	
	68·83	1	68·8		68·84	0·4	”	”	25·9	
			66·6	1	67·48	0·4	”	”	35·4	
					66·59	0·1b	”	”	41·7	
			66·3	1			”	”	54·	
					62·40	0·3n	”	”	71·3	
			62·1	1	62·11	0·6	”	”	73·3	
			61·8	1	61·68	0·5	”	”	76·4	
					60·90	0·1n	”	”	81·9	
			57·2	1	60·16	0·8	”	”	87·1	
					57·31	0·1n	”	”	26607·3	
					56·69	0·1n	”	”	11·7	
			56·0	1	56·11	0·4	”	”	15·8	
			55·7	1			”	”	19·	
					55·29	0·1n	”	”	21·6	
			59·64	1	54·8	1	54·68	0·3	”	”
	53·4	1			53·60	0·4b	”	”	33·6	
					53·08	0·1n	”	”	37·3	
					52·70	0·6	”	”	40·0	
	52·5	1					”	”	41·	
	50·8	1			50·89	0·1n	”	”	52·8	
	50·5	2			50·53	0·2s	”	”	55·3	
	48·2	1					”	”	72·	
	47·3	6			47·39	1·0	”	”	77·9	
	46·4	1			46·50	0·2	”	”	84·1	
	46·0	1					”	”	88·	
		45·77			0·9	”	”	89·3		
45·6	2					”	”	90·		
45·2	1n					”	”	93·		
44·6	1	44·52			0·5b	”	”	98·3		
50·539	1			43·99	0·1n	”	”	26702·1		
		43·6	1			”	”	05·		
		43·4	1			”	”	06·		
				43·02	0·8b	”	”	08·9		
		42·8	2			”	”	09·		
		42·4	1	42·47	1·0	”	”	12·9		
		41·8	1	41·92	0·2n	”	”	16·7		
				40·73	0·2b	”	”	25·2		
				39·63	0·3	”	”	33·1		
		42·948	1							
		42·44	2							

IRIDIUM—continued.

Arc Spectrum			Spark Spectrum				Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character	Wave-length	Intensity and Character			
Kayser	Exner and Haschek						$\lambda +$	$\frac{1}{\lambda}$	
3738.682	3738.66	2	3738.6	4	3739.69 38.67 36.19 35.60	0.1n 0.3 0.1 0.1	1.04 " 1.03 "	7.5 " " "	26737.0 40.0 57.7 62.0
34.900	34.90	3	34.8	6	34.54	0.1	"	"	67.0
			34.4	1	34.05	0.2	"	"	69.6
			34.0	1	33.25	0.1	"	"	71.
			33.4	1	32.76	0.1	"	"	73.1
			33.3	1	31.51	0.8	"	"	78.
			32.7	1	30.60	1	"	"	79.8
			32.1	1	29.75	0.2n	"	"	82.3
31.504	31.51	2	31.3	6	29.40	0.1	"	"	87.
	30.58	3	30.6		28.19	1.2	"	7.6	91.3
					27.57	0.3n	"	"	97.9
					27.10	1s	"	"	26804.0
	28.16	5	28.1	2	26.25	0.3	"	"	06.5
			27.4	1	25.57	0.7	"	"	15.2
	27.05	4	27.0	2	24.75	0.1	"	"	19.5
25.536	25.55	2	25.6	4	23.61	0.3n	"	"	23.1
					20.93	0.1n	"	"	29.0
22.904		3	22.9	2	19.51	0.1n	"	"	34.0
			22.6	2	17.14	0.1	"	"	39.8
			22.2	1	16.34	0.1b	"	"	48.1
21.628		1	21.7	1	15.8	1	"	"	53.
			21.2	1	14.48	0.1n	"	"	55.6
					13.85	0.1	"	"	78.8
					12.86	0.5	"	"	62.3
					11.27	0.1n	"	"	65.
					10.53	0.1n	"	"	67.4
					08.83	0.1n	"	"	77.7
					08.18	0.2n	"	"	91.
					07.14	0.3	"	"	94.8
					06.70	0.2	"	"	26900.6
					06.20	0.1n	"	"	05.
					05.8	1	"	"	14.1
					05.5	1	"	"	18.6
					04.57	0.1n	"	"	25.8
					03.7	1	"	"	27.3
					03.5	1	"	"	36.
					01.2	4	"	"	37.3
01.107		2			01.08	0.8	"	"	42.7
3698.261	3698.25	2	3698.1		3698.27	0.5	"	"	55.1
							"	"	59.8
							"	"	67.4
							"	"	70.6
							"	"	74.2
							"	"	77.
							"	"	79.8
							"	"	86.1
							"	"	92.
							"	"	94.6
							"	"	27011.4
							"	"	32.1

IRIDIUM—*continued.*

Arc Spectrum			Spark Spectrum				Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Exner and Haschek		Exner and Haschek		Lohse				
3696.308	3696.27	1n	3696.6 96.3 96.0	1 1n 1	3696.71 96.23 95.74	0.2 0.3n 0.2n	1.02 " "	7.6 " "	27043.5 46.7 50.6
92.851	92.85	2	92.7 92.3	2 6	92.84 92.44	0.8 1.0b	" "	" "	71.8 74.8
89.476		0	89.4	6	89.45	0.1n	"	"	86.4
88.321		1	88.2	1	90.17	0.3	"	"	91.4
	87.24	2	87.1	1	89.45 88.26	1.0 0.2n	" "	" "	96.6 27105.2
					87.24	0.2	"	"	13.0
					86.09	0.1n	"	"	21.4
			84.4	4	84.51	0.5	"	"	33.0
			83.6	1	83.71	0.1n	"	"	39.0
			83.0	1	83.09	0.1n	"	7.7	43.4
			82.4	1	82.52	0.1n	"	"	47.6
			81.9	1			"	"	52.
					81.75	0.1n	"	"	53.3
			81.6	1	81.10	0.1n	"	"	58.1
			79.5	1	79.58	0.2n	"	"	69.3
			78.3	1	78.51	0.2n	"	"	77.2
			77.1	1			"	"	88.
75.160	75.15	5	76.7	1	76.83	0.2	"	"	89.6
			75.0	8	75.16	1.0	"	"	27202.0
			74.0	1	74.26	0.1n	"	"	08.7
			73.2	1	73.30	0.1n	"	"	15.8
			72.0	1	72.15	0.3	"	"	24.3
					71.75	0.1	"	"	27.3
					71.03	0.2	"	"	32.6
					69.70	0.5	"	"	42.5
			68.2	1	68.36	0.1n	"	"	52.4
			67.8	1	67.92	0.2n	"	"	55.7
					66.35	0.1n	"	"	67.4
64.780	64.77	5	65.1	1	65.12	0.2b	"	"	76.5
			64.7	4	64.78	0.8	"	"	79.1
			64.3	1			"	"	83.
			63.5	1	63.54	0.3	"	"	88.3
			63.3	1			"	"	92.
61.867	61.86	5	61.7	4	61.88	0.9	"	"	27300.7
61.527	61.52	2	61.4	2	61.52	1.0	"	"	03.3
			60.6	1			"	"	10.2
					60.18	0.1n	"	"	13.4
			59.2	1			"	"	21.
			58.7	1			"	"	24.
					58.15	0.7	"	"	28.5
57.774		0	57.6	1	57.72	0.3	1.01	"	31.5
					57.06	0.1n	"	"	36.7
					55.05	0.1n	"	"	51.7
			54.5	1n	54.55	0.2	"	"	55.4
			54.0	1n			"	"	60.
53.358		1	53.2	10	53.34	2.3	"	"	64.4
			51.5	1n			"	"	78.
			50.3	1	50.47	0.1	"	"	85.0
47.857	47.85	2n	47.8	2			"	"	27405.7

IRIDIUM--continued.

Arc Spectrum			Spark Spectrum				Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Exner and Haschek		Exner and Haschek		Lohse				
3645.468	3645.47	1	3647.0	1	3647.02	0.1n	1.01	7.7	27411.9
					46.21	0.1n	"	"	18.0
			45.4	1n	45.34	0.1n	"	"	23.6
							"	"	24.6
41.037	41.03	3	44.0	1n	43.29	0.1n	"	"	35.
							"	"	40.0
			43.0	1			"	"	42.2
							"	"	57.0
			40.9	1	40.91	0.3b	"	"	58.0
			40.7	1			"	"	60.
					39.72	0.1n	"	"	66.9
					38.95	0.1	"	7.8	72.6
36.370	36.36	8	38.8	1			"	"	78.
			38.3	1			"	"	79.
			38.1	1n			"	"	83.1
					37.58	0.1	"	"	86.0
					37.19	0.1n	"	"	92.2
			36.2	4	36.35	1.0	"	"	91.2
			36.5	2			"	"	97.8
					35.64	0.3	"	"	27501.9
			35.0	1	35.08	1.0	"	"	09.5
					34.08	0.1	"	"	12.
							"	"	28.
							"	"	29.
29.911	29.91	3	33.7	1			"	"	34.
			31.7	1 Fe?			"	"	41.1
			31.5	1 Fe?			"	"	41.9
			30.8	1n			"	"	45.6
29.317	29.31	2	29.9	1			"	"	
			29.8	1	29.80	0.3b	"	"	
28.843	28.84	10	29.3	1			"	"	
			28.8	4	28.82	1.2	"	"	49.3
26.460	26.44	5	28.3	1			"	"	53.
			27.9	1			"	"	56.0
			26.7	1	26.88	0.2n	"	"	64.1
			26.4	4	26.44	0.6	"	"	67.4
			25.8	2	25.89	0.3	"	"	71.7
			25.4	1			"	"	75.
23.976	23.95	3	24.7	1			"	"	80.
			24.3	1			"	"	84.
			23.8	1	23.97	0.2n	"	"	86.3
			22.0	1			"	"	27601.
			21.7	1			"	"	04.
					20.54	0.1n	"	"	12.
					19.94	0.1	"	"	17.
							"	"	22.1
19.236	19.30	2	19.9	1			1.00	"	33.
			19.3	2			"	"	36.5
17.378	17.37	8	17.9	1			"	"	42.2
			17.3	4	17.39	0.7	"	"	49.5
			16.4	1	16.62	0.2n	"	"	57.8
			15.6	1	15.68	0.1n	"	"	68.7
			14.5	1	14.59	0.1n	"	"	67.9
					13.95	0.1n	"	"	73.2
09.933	09.91	8			13.28	0.1n	"	"	
					12.59	0.2n	"	"	93.6
					09.94	0.5	"	"	27701.
			09.0	1			"	"	

IRIDIUM—continued.

Arc Spectrum			Spark Spectrum				Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda} -$	
Kayser	Exner and Haschek		Exner and Haschek		Lohse				
3605·958	3605·99	3	3607·3'' 05·9 04·9 04·5 03·8 02·2	1 10 1 1 1 1	3605·99	2·5 0·8 0·2	1·00 " " " " "	7·8 " " " " "	27714· 23·9 32· 34·0 39·5 53·
01·568	01·56	4	01·5 00·5 3599·8	1 2 1	01·59 00·54 3599·94	0·3 0·1 0·5	" " "	" " "	57·9 65·8 70·6
98·936	98·91	3		1	98·92 98·29 97·9 97·30 96·37	0·3 0·1n 0·1n 0·2 1·1	" " " " "	" " " " "	78·3 83·1 86·1 90·8 98·1
96·356		0	96·4 95·6 95·0	1 1 1			" " "	" " "	27804· 08·
94·557	94·56	5	94·5	4	94·60	0·8	"	7·9	11·8
94·308	94·30	3	94·3	1			"	"	13·9
	93·16	3 Ru ?	93·1 92·2 91·9	2 1 1	93·21	1·1	" " "	" " "	22·6 30· 32·
			91·3	1	91·55	0·1n	"	"	35·2
	89·34	3 Pt?	89·3 88·9 88·3'' 87·3 87·1 86·3 85·8 85·3 84·6 83·5	2 1n 1n 1 1 1 1 1n 1 2	89·90 89·43	1·1n 1·1	" " " " " " " "	" " " " " " "	37· 48· 52· 56· 60· 67·4 70· 75·3 80· 83·2 88·3
	83·24	10 Rh ?	83·2 81·0 78·2 77·7 77·3 76·9 76·3 75·9 75·6 75·2 74·9 74·6 73·8 73·1 72·9 72·5 72·1 71·9 70·7	2 1 1 1 1 1 1 1 1 1 1n 1 8 1 1 1 1 1 1	83·30 80·97 77·24 74·75 73·87	0·1 0·1n 0·2n 0·1n 1·45	" " " " " " " " " " " " " " " " " " "	" " " " " " " " " " " " " " " " " " "	96·8 99·6 27917·5 39· 43· 46·6 49· 54· 57· 59· 62· 65· 66·1 72·9 79· 80· 84· 87· 88· 97·5
3573·888	73·89	10			70·74	0·4	"	"	

IRIDIUM—*continued.*

Arc Spectrum			Spark Spectrum				Reduction to Vacuum		Oscillation Frequency in Vacuo	
Wave-length		Intensity and Character	Wave-length	Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda} -$		
Kayser	Exner and Haschek		Exner and Haschek		Lohse					
3568.156			3570.0	1	3569.95	0.1	0.99	7.9	28003.	
			69.5	1n		"	"	03.7		
			68.1	2		"	"	07.		
						"	"	17.7		
						"	"	23.7		
						"	"	30.1		
			64.8	1		"	"	42.9		
			63.0	1		"	"	58.2		
						"	"	60.1		
			61.5	1		"	"	73.9		
			60.5''	1		"	"	78.		
			60.0	1		"	"	82.		
59.160	3559.15	8	59.8	1	59.95	0.2	"	"	82.4	
					"	"	"	"	84.	
					"	"	"	"	88.6	
			58.2''	1	59.17	1.	"	"	96.	
			57.325	57.35	5	57.36	1.	"	"	28102.9
					"	"	"	"	09.	
					"	"	"	"	14.4	
					"	"	"	"	15.	
					"	"	"	"	24.	
					"	"	"	"	29.	
					"	"	"	"	32.	
					"	"	"	"	35.3	
52.223	53.26	2 Pd?	52.7	1			"	"	40.	
			52.2	2	52.31	0.1	"	"	43.1	
			51.4	1	51.54	0.1	"	8.0	48.0	
			50.7	1			"	"	56.	
			50.3	1			"	"	59.	
					49.74	0.1n	"	"	63.1	
			48.7	2	48.77	0.1n	"	"	70.8	
			47.2	1n			"	"	83.	
			46.5	1			"	"	88.	
			46.2	1			"	"	91.	
			45.8	1			"	"	94.	
			45.2	1			"	"	99.	
	46.60	1n	44.7	1			"	"	28203.	
			44.2	1	44.15	0.1n	"	"	07.5	
					43.46	0.1n	"	"	13.	
			42.7	1	42.88	0.1	"	"	17.6	
			42.1	1			"	"	24.	
					41.81	0.1n	"	"	26.1	
			41.6	1			"	"	28.	
			40.8	1			"	"	34.	
			39.5	1	39.47	0.2	"	"	44.8	
			38.7	1			"	"	51.	
					38.10	0.1n	"	"	55.8	
			37.6	1			0.98	"	60.	
37.2	1			"	"	63.				
36.9	1			"	"	65.				
36.7	1			"	"	67.				
36.4	1			"	"	69.				
35.9	1	35.99	0.4	"	"	72.6				
34.5	1			"	"	85.				

IRIDIUM—*continued.*

Arc Spectrum			Spark Spectrum				Reduction to Vacuum		Oscillation Frequency in Vacuo	
Wave-length		Inten- sity and Cha- racter	Wave-length	Inten- sity and Cha- racter	Wave-length	Inten- sity and Cha- racter	$\lambda +$	$\frac{1}{\lambda}$		
Kayser	Exner and Haschek		Exner and Haschek		Lochse					
3522.191	3522.21	6	3534.3	1	3532.99	0.1n	0.98	8.0	28286.	
			32.4	1		32.41	0.1	"	"	96.6
			31.7	1			"	"	"	28301.3
			31.5	1	31.47	0.1n	"	"	07.	
			30.8	1	30.88	0.1n	"	"	08.8	
			28.7	1	28.75	0.2	"	"	13.6	
					28.15	0.3	"	"	30.6	
			26.8	1	26.87	0.1n	"	"	35.5	
			24.0	1		"	"	"	45.8	
			23.4	1		"	"	"	69.	
			22.4	4	22.17	0.6	"	"	74.	
			20.3	1n	20.19	0.1n	"	"	83.3	
			19.7	1		"	"	"	99.6	
					18.85	0.1n	"	"	28404.	
					18.6	1		"	"	10.4
16.110	16.11	6			17.03	0.1n	"	"	12.	
					16.07	0.3	"	"	25.1	
					14.60	0.1	"	"	32.6	
13.807	13.82	10	13.7	6	13.80	1.2	"	"	44.7	
12.356	12.36	3	12.3	2	12.35	0.1	"	"	51.1	
12.054	12.04	3	11.9	1	12.04	0.1	"	"	62.9	
10.793	10.80	3	10.7	1	10.79	0.2	"	"	65.4	
			10.3	1			"	"	75.6	
			09.4	1	09.37	0.5	"	8.1	82.	
			09.0	1			"	"	87.	
08.731	08.71	1					"	"	90.	
							"	"	92.5	
			08.4	1			"	"	95.	
					07.64	0.2	"	"	28501.1	
			06.2	1	06.13	0.1	"	"	13.4	
			05.2	1n			"	"	21.	
					04.78	0.1n	"	"	24.3	
03.088	03.09	2	04.3	1			"	"	28.	
			03.0	1			"	"	38.1	
					02.69	0.3	"	"	41.4	
			01.6	1n			"	"	50.	
			00.8	1	00.85	0.1n	"	"	56.4	
			00.5	1n			"	"	69.	
3499.271		1	3499.0		3499.08	0.9	"	"	70.8	
			98.3	1			0.97	"	"	77.
			97.8	1			"	"	81.	
96.580	3496.59	1			97.14	0.2	"	"	86.7	
			96.5	1n			"	"	91.2	
			96.0	1n			"	"	96.	
					95.93	0.1n	"	"	96.5	
94.787	94.79	3	95.5	1n			"	"	28600.	
			94.8	2	94.81	0.1	"	"	05.9	
			93.7	1			"	"	15.	
92.217	92.21	1	93.2	1			"	"	19.	
			92.3	1			"	"	27.0	
			92.0	1			"	"	29.	
			91.3	1			"	"	35.	
			89.2	1			"	"	38.	
			90.9	1			"	"	41.	

IRIDIUM—*continued.*

Arc Spectrum			Spark Spectrum				Reduction to Vacuum		Oscillation Frequency in Vacuo	
Wave-length		Intensity and Character	Wave-length	Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda} -$		
Kayser	Exner and Haschek		Exner and Haschek		Lohse					
3488.727	3488.73	3	3490.5	1			0.97	8.1	28652.	
			88.7	1			"	"	55.7	
			88.2	1n			"	"	60.	
			87.6	1			"	"	65.	
			86.2	1			"	"	77.	
85.660	85.68	3	85.6	1			"	"	80.8	
84.649	84.66	4	84.6	1	3484.65	0.1	"	"	89.2	
84.256	84.26	3	84.3	1	84.21	0.1	"	"	92.5	
	83.63	1					"	"	97.6	
82.760	82.78	4	83.2	1			"	"	28701.1	
			82.5	1		82.73	0.1	"	"	04.7
			81.5	1			"	"	07.	
81.254	81.26	3			81.35	0.1n	"	"	15.	
							"	"	16.	
							"	"	17.2	
			80.7	1n			"	"	22.	
			79.9	1			"	"	28.	
77.930	76.60	1	79.4	1	79.50	0.1	"	"	31.7	
		78.0	2	77.90	0.1n	"	"	44.8		
76.611	76.60	3	76.7	2	76.62	0.1n	"	"	55.6	
		76.3	1			"	"	58.		
76.182	76.17	1					"	"	59.1	
			75.8	1			"	"	62.	
68.749	72.98	1			74.96	0.1n	"	"	69.2	
			74.5	1			"	"	73.	
					74.36	0.1n	"	"	74.2	
			73.6	1			"	"	80.	
			73.3	1			"	"	83.	
			72.7	1			"	"	85.6	
			72.0	1			"	"	94.	
			70.2	1	70.85	0.1	"	8.2	28803.2	
							"	"	09.	
			69.79	2			"	"	11.9	
68.749	68.75	2			"	"	21.5			
	68.02	1	68.1	1			"	26.7		
65.390	65.39	3	67.1	1			"	"	34.	
			66.2	1			"	"	42.	
			65.5	2	65.38	0.1	"	"	48.6	
					62.23	0.1	"	"	74.9	
			61.8	1			"	"	79.	
			61.3	1			"	"	83.	
			60.0	1n			"	"	94.	
55.949	58.10	2	58.8	2	58.85	0.1	0.96	"	28903.1	
							"	"	09.4	
			57.4	1n			"	"	15.	
							"	"	16.5	
			57.25	1			"	"	27.4	
50.916	50.93	1	56.0	1			"	"	35.	
			55.1	1			"	"	60.	
			52.1	1			"	"	63.	
			51.7	1			"	"	69.6	
			51.0	1			"	"	75.	
49.133	49.13	10	50.3	1			"	"	84.7	
48.621	48.61	1	49.2	4	49.10	0.3	"	"	88.9	
			48.8	1			"	"		

IRIDIUM—*continued.*

Arc Spectrum			Spark Spectrum				Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$1 - \lambda$	
Kayser	Exner and Haschek		Exner and Haschek		Lohse				
	3447.90	1	3448.0	1			0.96	8.2	28995.
3446.793	46.79	2	46.8	1					29004.3
46.476	46.49	2	46.4	1	3446.48	0.1	"	"	06.9
45.682		0	45.5	1n			"	"	13.6
			44.2	1			"	"	26.
					40.71	0.1n	"	"	55.6
			39.0	1n			"	"	70.
38.244	38.21	2	38.2	1n			"	"	76.6
37.670	37.65	4	37.6	4	37.69	0.3	"	"	81.3
37.189	37.20	10	37.2	6	37.19	0.3	"	"	85.3
					36.88	0.1	"	"	88.
35.554		0					"	"	99.2
35.200		0					"	"	29102.2
34.915		2			35.07	0.2n	"	"	04.6
33.475	33.46	2	33.4	1			"	"	16.9
32.930	32.92	1					"	8.3	21.4
	32.20	1	32.3	1			"	"	27.5
			31.6	1			"	"	33.
31.476	31.45	1					"	"	33.8
30.941	30.94	1	31.1	1			"	"	38.2
30.197	30.20	1	30.0	1			"	"	44.5
29.748		0					"	"	48.4
29.026	29.01	2	29.1	1			"	"	54.6
			28.6	1			"	"	58.
	28.47	3			28.47	0.1	"	"	59.2
			28.3	1			"	"	61.
			27.7	1			"	"	66.
			27.3	1			"	"	69.
			26.8	1n			"	"	74.
			26.0	1n			"	"	80.
25.526	25.50	1	25.5	1			"	"	84.4
24.854	24.85	3	24.9	1			"	"	90.0
			23.9	1			"	"	98.
21.923	21.93	2	22.0	1			"	"	29215.0
			21.5	1			"	"	19.
20.895		0					"	"	23.8
20.646	20.64	3	20.8	1			"	"	26.0
20.111		0	20.2	1			"	"	30.5
19.592	19.57	3	19.6	2			"	"	35.0
18.533	18.54	1					"	"	44.0
			17.5	1	17.46	0.1n	0.95	"	53.2
			16.3	1			"	"	63.
15.906	15.87	2	15.8	1			"	"	66.7
15.408	15.39	3	15.4	1n			"	"	70.8
			14.9	1			"	"	75.
			13.4	1			"	"	88.
12.762	12.75	2	12.6	1			"	"	93.5
11.730	11.72	2	11.7	1			"	"	29302.3
			10.3	1			"	"	15.
10.180	10.19	1	10.2	1			"	"	15.6
09.931	09.91	1	10.	1			"	"	17.9
	09.40	1n	09.5	1			"	"	22.4
			08.2	1	08.32	0.1n	"	"	31.7
			05.5	1			"	"	56.

IRIDIUM—*continued.*

Arc Spectrum			Spark Spectrum				Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda} -$	
Kayser	Exner and Haschek		Exner and Haschek		Lohse				
			3403.6	ln			0.95	8.3	29372.
3402.962	3402.95	2	03.0	l			"	"	77.8
02.182	02.17	2					"	"	84.6
01.927	01.92	3	01.9	l			"	"	96.8
			3398.3	ln			"	"	29418.
			97.5	l			"	"	25.
			97.1	l			"	"	29.
			96.3	l			"	"	36.
			96.0	l			"	8.4	38.
3395.129	3395.14	3	95.2	2			"	"	45.5
			93.6	l			"	"	59.
			92.7	2			"	"	67.
			91.5	l			"	"	77.
91.032	91.05	1	91.1	l			"	"	81.0
89.473		1					"	"	94.7
			88.9	l			"	"	29500.
88.158	88.15	1	88.1	l			"	"	06.2
88.023	88.05	1					"	"	07.1
			87.8	l			"	"	09.
86.678		0					"	"	19.0
86.330	86.34	3	86.4	l			"	"	22.1
	85.91	1					"	"	25.7
85.752	85.76	2	85.7	l			"	"	27.1
85.272	85.27	2	85.3	l			"	"	31.3
			85.0	l			"	"	34.
83.917	83.91	1	83.9	ln			"	"	43.2
83.474		0					"	"	47.0
			82.2	l			"	"	58.
			81.6	l			"	"	63.
			81.3	l			"	"	66.
81.151	81.18	3					"	"	67.2
79.993	80.01	1	80.0	l			"	"	77.4
			79.5	l			"	"	82.
78.550		On	78.5	l			"	"	90.1
78.219		On	78.1	l			"	"	93.9
77.288		On					0.94	"	29601.2
76.146	76.15	1	76.2	l			"	"	11.2
			75.5	ln			"	"	16.8
74.942		0					"	"	21.7
74.597	74.61	1	74.6	l			"	"	24.7
	74.16	1	74.1"	l			"	"	28.6
72.958	72.96	1	72.7	2			"	"	39.2
71.594	71.60	4	71.5	2			"	"	51.1
70.785	70.78	3	70.7	l			"	"	58.3
	69.14	1					"	"	72.8
68.640	68.64	8	68.0	l	3468.57	0.1n	"	"	77.2
67.210	67.21	2					"	"	89.8
67.063	67.09	2	67.0	l			"	"	91.0
			66.6	l			"	"	96.
			66.3	l			"	"	98.
65.678	65.69	1	65.6	l			"	"	29703.2
65.273		0					"	"	06.9
					64.75	0.1n	"	"	11.5

IRIDIUM—continued.

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character			
Kayser	Exner and Haschek				Exner and Haschek	$\lambda +$	
3364·380	3364·40	2	3364·4	1	0·94	8·4	29714·7
			61·8	1	"	"	38·
			61·6	1	"	"	39·
			61·2	1	"	"	43·
60·950		7			"	8·5	45·0
			60·2	1n	"	"	52·
60·038	60·00	1n			"	"	53·1
	59·90	3	59·9	1n	"	"	54·3
	59·63	2	59·7	1	"	"	56·7
59·262		0			"	"	59·9
			58·3	1	"	"	68·
			58·2	1	"	"	69·
56·697		0			"	"	82·7
56·342		0			"	"	85·8
55·942	55·95	2	55·9	1	"	"	89·3
55·739		0			"	"	91·2
			55·5	1	"	"	93·
			55·3	1	"	"	95·
53·696	53·70	1	53·7	1	"	"	29809·3
52·987	53·00	2	52·9	1	"	"	15·6
			52·3	1n	"	"	22·
			51·5	1n	"	"	29·
			50·2	1	"	"	40·
			50·0	2	"	"	42·
			48·1	1	"	"	59·
48·015		1	48·0	1	"	"	60·0
47·695	47·72	2	47·6	1	"	"	62·7
46·609	46·61	1	46·6	1n	"	"	72·5
			45·5	1	"	"	82·
			44·7	1n	"	"	90·
44·360	44·36	2	44·4	1	"	"	92·6
43·745	43·55	1n			"	"	98·9
43·182		0	43·1	1	"	"	29903·1
42·930		0			"	"	05·5
			42·5	1	"	"	09·
			42·0	1n	"	"	14·
			41·0	1	"	"	23·
40·485	40·50	3	40·6	1	"	"	27·2
			40·3	1	"	"	29·
	39·70	1n	39·6	1	"	"	34·3
39·532	39·56	4			"	"	35·6
39·028		0			"	"	40·3
38·535	38·56	5	38·5	2	0·93	"	44·6
37·985		1	37·9	2	"	"	49·7
37·637		0	37·5	1	"	"	52·8
36·195	36·21	1	36·2	1	"	"	65·7
			35·7	1	"	"	70·
35·185		0			"	"	74·8
			34·9	1	"	"	77·
34·318	34·35	6	34·3	4	"	"	82·5
33·600		0			"	"	89·1
30·968		0	27·9	1	"	"	30012·6
27·688		0			"	"	42·4
27·039	27·04	2			"	"	48·3

IRIDIUM—*continued.*

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character			
Kayser	Exner and Haschek		Exner and Haschek		$\lambda +$	$\lambda -$	
3326.687		0			0.93	8.5	30051.4
26.245	3326.25	1	3326.3	1	"	"	55.4
26.056		0			"	"	57.1
	25.58	1	25.5	1b	"	"	61.4
			23.9	1	"	8.6	77.
23.011	23.03	4	23.1	2	"	"	84.5
			22.9	4	"	"	86.
22.750	22.77	5	22.7	4	"	"	86.9
21.901		0			"	"	94.6
			20.7	1n	"	"	30106.
20.504		1			"	"	07.3
19.680		0			"	"	14.8
19.231	19.25	1	19.2	1n	"	"	18.8
18.812		0			"	"	22.6
18.596	18.60	1	18.6	1n	"	"	24.6
17.664		0			"	"	33.1
17.457	17.45	1	17.5	1	"	"	35.0
16.771	16.80	2	16.7	1	"	"	41.1
16.534		0n			"	"	43.4
16.129		0			"	"	47.1
13.472					"	"	71.2
12.268	12.31	4	12.3	1	"	"	82.0
11.365		0	11.3	1n	"	"	90.4
11.161	11.16	1			"	"	92.3
10.674	10.69	5	10.7	2	"	"	96.6
10.032		0			"	"	30202.6
09.535	09.55	1	09.6	1	"	"	07.0
08.939		0			"	"	12.6
08.581	08.57	1n			"	"	15.9
07.774	07.78	1	07.8	1n	"	"	23.2
			06.6	1	"	"	34.
05.980	05.99	1	06.0''	1n	"	"	39.6
05.787	05.80	1			"	"	41.3
			05.2	1	"	"	47.
05.057	05.07	2			"	"	48.0
04.460		0			"	"	53.5
03.771	03.78	2	03.7	1	"	"	59.8
03.236	03.24	2			"	"	64.7
			02.7	1n	"	"	70.
01.900		1	02.0	1	"	"	77.0
01.735		0			"	"	78.5
01.502		0			"	"	80.6
00.732		0			"	"	87.6
			3299.3	1n	0.92	"	30301.
			99.0	1	"	"	04.
			98.3	1	"	"	10.
3297.655	3297.65	2	97.6	1	"	"	16.0
			97.4	1n	"	"	18.
95.220	95.24	2	95.3	1	"	"	38.3
			94.7	1	"	"	43.
94.251		0	94.3	1	"	"	47.3
94.150		0			"	"	48.2
			93.6	1	"	"	53.
			93.3	1	"	"	56.

IRIDIUM—*continued.*

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character			
Kayser	Exner and Haschek				$\lambda +$	$\frac{1}{\lambda}$	
			3292.6	1	0.92	8.6	30363.
			92.2	1	"	"	66.
			91.6	1	"	"	72.
3291.187		0	91.4	1	"	"	75.6
91.010		0			"	"	77.2
90.640		0	90.2	1	"	"	80.6
			89.2	1	"	8.7	94.
			88.7	1	"	"	99.
			88.4	1	"	"	30401.
87.726	3287.72	5	87.7	1	"	"	07.5
87.198	87.20	4	87.2	1	"	"	12.3
85.721		0	85.7	1n	"	"	26.0
84.695	84.69	2	84.6	2	"	"	35.5
84.456		1			"	"	37.7
			84.0	1	"	"	42.
82.458	82.46	2	82.5	1	"	"	56.3
			82.3	1	"	"	58.
82.024		0			"	"	61.3
	81.85	1	81.8	1	"	"	67.9
			81.2	1n	"	"	68.
80.705		1	80.6	1	"	"	72.5
80.011		0			"	"	79.0
			79.6	1	"	"	83.
			79.1	1	"	"	87.
	78.41	1	78.2	1	"	"	93.9
			77.9	1	"	"	99.
77.422	77.41	5	77.4	1	"	"	30503.1
76.291	76.28	1	76.3	1	"	"	13.7
75.735	75.74	2			"	"	18.8
75.452	75.45	1	75.6	1	"	"	21.4
75.167	75.15	1	75.0	1	"	"	24.0
74.686	74.68	2			"	"	28.6
			74.2	1	"	"	33.
72.772		0	72.7	1	"	"	46.4
			72.5	1	"	"	49.
71.936	71.94	3	71.8	1	"	"	54.2
71.372	71.38	4	71.4	1	"	"	59.5
69.835		0			"	"	73.9
			69.5	1n	"	"	77.
68.663		0	68.7	1	"	"	84.9
			68.5	1	"	"	86.
67.236	67.22	1	67.2	1n	"	"	98.3
66.580	66.59	8	66.5	2	"	"	30604.3
65.399		0			"	"	15.4
			64.6	1	"	"	23.
			64.3	1	"	"	26.
63.436	63.44	1n			"	"	33.8
63.062	63.09	1	63.1	1	"	"	37.2
62.852	62.85	1			"	"	39.3
			62.6	1	"	"	42.
62.147	62.15	5	62.1	2	"	"	45.9
			61.4	1	"	"	54.
			61.0	1n	"	"	57.
			59.7	1n	0.91	"	69.

IRIDIUM—*continued.*

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character			
Kayser	Exner and Haschek		Exner and Haschek		$\lambda +$	$\lambda -$	
3257·916			3259·0''	1	0·91	8·7	30676·
	3256·92	2	56·9	1n	"	"	85·8
56·346		1			"	"	95·1
56·194		2			"	"	30700·6
			55·9	1	"	"	02·0
	55·20	2	55·1	1	"	"	05·
54·542	54·54	4	54·4	4	"	"	11·4
53·497		1	53·4	2	"	"	17·6
			52·0''	1n	"	8·8	27·4
49·866	49·87	3	49·8	1	"	"	42·
49·638	49·63	2	49·6	1	"	"	61·7
47·417		1			"	"	63·9
46·951		0	46·9	1	"	"	84·9
46·431		2	46·3	1	"	"	89·3
45·510		0	45·4	1n	"	"	94·2
45·022	45·02	1	45·0	1	"	"	30803·0
44·887		0			"	"	07·6
43·568		0	43·8	1	"	"	08·9
42·734	42·78	1			"	"	21·4
42·462	42·47	1	42·4	1	"	"	29·1
42·132		1			"	"	32·9
41·640	41·65	6	41·6	4	"	"	35·1
41·395		0			"	"	39·7
40·688	40·69	1	40·7	1	"	"	42·1
40·351	40·35	3	40·4	1	"	"	48·8
			39·5	1b	"	"	52·2
38·675		0	38·5	1	"	"	60·
38·414		1			"	"	67·1
38·003		0	37·9	1	"	"	70·5
			37·4	1n	"	"	74·4
37·115		0	37·0	1	"	"	80·
			36·1	1	"	"	82·9
			35·7	1	"	"	93·
35·587		0			"	"	96·
35·370		0	35·3	1	"	"	98·0
			34·5	1	"	"	99·6
			33·0	1	"	"	30908·
32·618		0	32·8	1	"	"	22·
32·342		1			"	"	25·9
32·145	32·14	4n	32·0	4	"	"	28·5
			31·7	1n	"	"	30·4
			31·2	1	"	"	35·
30·903	30·90	4			"	"	39·
			30·7	2	"	"	42·3
29·412	29·40	5	29·3	4	"	"	44·
28·672		0	28·6	2	"	"	56·6
27·675		0	27·8	1	"	"	63·7
			27·0	1	"	"	73·2
26·840	26·83	2	26·7	1	"	"	80·
			25·8	1	"	"	81·3
			25·5	1	"	"	91·
24·637		0	24·5	1	"	"	94·
24·016	24·06''	1n			"	"	31002·4
					"	"	08·2

IRIDIUM—continued.

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character			
Kayser	Exner and Haschek		Exner and Haschek		$\lambda +$	$\frac{1}{\lambda}$	
3223·645	3223·65	1	3223·6	1	0·91	8·8	31012·0
23·138		0	23·0	1	"	"	16·9
22·854		0			"	"	19·6
22·600		1	22·5	4	"	"	22·0
			22·4	2	"	"	24·
21·415	21·40	4	21·3	2	"	"	33·5
20·924	20·91	10	20·7	6	0·90	"	38·2
	19·66	6	19·6	2	"	"	50·4
18·593	18·60	4	18·6	1	"	"	60·6
17·700	17·70	1			"	"	69·3
17·301		0	17·3	1n	"	"	73·2
16·905		1			"	"	77·0
16·431		0	16·5	1	"	8·9	81·5
			15·2	1	"	"	93·
			14·3	1	"	"	31102·
			14·0	1	"	"	05·
13·681	13·68	3	13·6	1	"	"	08·1
			13·2	1	"	"	13·
12·629		0			"	"	18·2
12·350	12·37	4	12·1	8	"	"	20·8
12·240	12·22	4			"	"	22·1
			11·5	1	"	"	29·
			11·4	1	"	"	30·
10·131		2			"	"	42·5
			09·9	1	"	"	45·
			09·6	1	"	"	48·
09·050		0	09·1	1	"	"	53·0
08·287	08·27	2	08·1	1	"	"	60·5
	07·22	1	07·0	1	"	"	70·8
			06·3	1	"	"	80·
05·837		0	05·7	1	"	"	84·2
05·227	05·22	3	05·1	1	"	"	90·2
04·587		2	04·5	1	"	"	96·4
04·230		0			"	"	99·8
			03·2	1	"	"	31210·
			02·7	1	"	"	15·
02·250		0			"	"	19·1
02·023		0			"	"	21·3
			01·8	1	"	"	24·
01·027	01·02	2	01·0	1	"	"	31·1
00·166	00·16	1n	00·1	1	"	"	39·5
3199·058	3199·06	5	3199·0	2	"	"	50·3
98·226	98·23	1	98·1	1	"	"	58·4
			97·5	1	"	"	65·
95·882		0	95·7	1	"	"	81·4
			94·2	1	"	"	98·
93·345		2			"	"	31306·2
93·240		1	93·2	1	"	"	07·3
			90·0	1	"	"	33·
			90·2	1n	"	"	37·
89·486	89·47	1	89·4	1	"	"	44·2
88·702		1	88·7	1	"	"	51·8
88·487		0			"	"	53·9
87·267		0	87·3	1	"	"	65·9

IRIDIUM—continued.

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character			
Kayser	Exner and Haschek		Exner and Haschek		$\lambda +$	$\frac{1}{\lambda}$	
3186·667		1	3186·8	1	0·90	8·9	31371·8
86·184		0			"	"	76·6
86·030		0			"	"	78·1
			85·7	1	"	"	81·
			85·4	1	"	"	84·
			84·8	1	"	"	90·
			83·7	1n	"	"	31401·
82·924		1			"	"	08·7
			82·8	1n	"	"	10·
82·514		0			"	"	12·8
			82·0	1n	"	"	18·
			81·4	1	0·89	"	24·
80·487	3180·48	4	80·4	1	"	9·0	32·8
79·328	79·32	3	79·2	1n	"	"	44·2
79·811	78·80	1	78·7	1	"	"	49·4
			78·4	1	"	"	53·
77·712	77·70	4	77·6	1	"	"	60·2
77·325		0	77·2	1	"	"	64·0
			76·7	1	"	"	70·
76·106		0	76·0	1	"	"	76·1
			75·3	1n	"	"	84·
			74·8	1	"	"	89·
			73·3	1	"	"	31502·3
73·466		3			"	"	04·7
73·222		0			"	"	07·8
72·915	72·91	3	72·9	1	"	"	18·8
71·812	71·80	2	71·7	1	"	"	22·
			71·5	1	"	"	24·
			71·3	1	"	"	37·
			70·0	1	"	"	46·6
69·010	69·01	6	69·2	4	"	"	49·9
68·673		0			"	"	52·6
68·404		1	68·4	2	"	"	53·7
68·297	68·30	4			"	"	58·7
67·792		0			"	"	63·5
67·328	67·30	3	67·3	1	"	"	67·9
66·886	66·85	1	66·8	1	"	"	74
			66·3	1n	"	"	78·3
65·833		1			"	"	83·4
65·323		1	65·3	1	"	"	92·8
64·376		0	64·1	2	"	"	96·8
63·972		1			"	"	31607·0
62·953		0	63·0	1	"	"	07·8
62·871		0			"	"	12·1
62·445		0	62·5	1	"	"	17·1
61·948	61·95	2	61·9	1	"	"	21·7
61·477	61·49	2	61·4	1	"	"	36·6
59·992		1	60·1	1	"	"	40·2
59·644	59·64	2	59·6	1	"	"	43·7
59·280	59·29	4	59·2	1	"	"	50·6
			58·6	1	"	"	58·5
57·836		0			"	"	60·6
57·614	57·60	2	57·6	1	"	"	66·
			57·1	1	"	"	73·9
56·274	56·28	2	56·3	1	"	"	

IRIDIUM—continued.

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character			
Kayser	Exner and Haschek		Exner and Haschek		$\lambda +$	$\frac{1}{\lambda}$	
			3155.2	1n	0.89	9.0	31685.
3154.874	3154.85	3	54.8	2	"	"	88.1
54.679	54.66	3	54.7	1	"	"	90.0
			52.7	1	"	"	31710.
51.748	51.75	1n	51.7	1n	"	"	19.4
50.727	50.76	4	50.7	1	"	"	29.6
50.128		0			"	"	35.7
			49.6	1	"	"	41.
			49.0	1	"	"	47.
48.346		0			"	"	53.7
			48.1	1	"	"	56.
47.860	47.85	1	47.9	1	"	"	58.7
			46.9	1	"	9.1	68.
			46.6	1	"	"	71.
			45.7	1n	"	"	80.
	45.17	3	45.2	2	"	"	85.7
			44.5	1	"	"	93.
			44.4	1	"	"	94.
			44.0	1	"	"	98.
43.668		0			"	"	31800.9
42.994		0			"	"	07.7
42.371		1			"	"	14.0
					"	"	18.3
41.946		1	41.2	2	0.88	"	26.
	40.52	3	40.4	1	"	"	32.8
39.704	39.70	1			"	"	41.1
			38.6	1n	"	"	52.
			37.8	6	"	"	60.
36.418	36.56	1n			"	"	73.7
			35.5	1n	"	"	84.
35.358		0			"	"	85.2
			35.0	1n	"	"	89.
			34.2	1	"	"	97.
	33.89	1			"	"	31900.1
33.432	33.45	8 nr	33.4	6	"	"	04.7
33.210	33.23	3			"	"	07.0
			32.7	1	"	"	12.
			32.3	1	"	"	16.
			29.9	1	"	"	41.
			29.7	1	"	"	43.
			29.3	1	"	"	47.
28.510	28.51	3	28.6	2	"	"	55.0
			26.9	1	"	"	72.
			25.0	1	"	"	91.
24.203	24.20	1	24.3	1	"	"	99.1
24.024		0			"	"	32000.9
23.334		2			"	"	08.0
	22.82	1	22.6	2	"	"	13.2
22.509	22.50	3			"	"	16.5
21.894	21.91	4	22.1	4	"	"	22.7
20.885	20.90	5	20.9	2	"	"	33.0
			20.5	1	"	"	37.
			19.8	1	"	"	44.
19.422		0			"	"	48.1

IRIDIUM—continued.

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character			
Kayser	Exner and Haschek				$\lambda +$	$\frac{1}{\lambda}$	
3118·967		1	3118·9	2	0·88	9·1	32052·8
17·968		0			"	"	63·1
17·645	3117·64	1			"	"	66·4
			17·4	2	"	"	69·
			16·3	1	"	"	80·
14·669	14·69	3	14·6	1	"	"	96·9
14·170	14·16	3 Pd ?	14·2	1	"	9·2	32101·1
13·908		1			"	"	04·9
13·229		1			"	"	12·1
12·475	12·48	2	12·5	1	"	"	19·5
			12·2	1	"	"	23·
			10·4	1	"	"	41·
			10·0	1	"	"	45·
	09·49	1	09·5	1	"	"	50·4
08·670	08·67	1	08·7	1	"	"	58·9
			08·2	1	"	"	64·
			07·7	1	"	"	69·
			07·3	1	"	"	73·
			06·8	1	"	"	78·
06·072		0	06·2	1	"	"	85·8
			05·3	1	"	"	94·
04·301		0	04·3	1	"	"	32204·2
03·875	03·88	1	03·9	1	"	"	08·6
			02·8	1n	"	"	20·
01·288	01·29	2	01·3	1	0·87	"	35·5
00·586	00·50	8	00·5	6	"	"	43·2
			3099·9	1	"	"	50·
			99·6	1	"	"	53·
			99·2	1	"	"	57·
3099·055	3099·05	1n			"	"	58·7
			98·7	1	"	"	62·
98·555		0			"	"	63·9
			98·4	1	"	"	66·
97·931	97·94	2	97·9	1	"	"	70·4
			95·4	1	"	"	97·
	94·49	1	94·6	1	"	"	32306·3
94·326		1	94·3	1	"	"	08·0
94·144	94·14	2	94·1	1n	"	"	09·9
			93·5	1	"	"	17·
			93·1	1	"	"	21·
			92·8	1	"	"	24·
			92·5	1	"	"	27·
			91·6	1n	"	"	37·
91·254		0			"	"	40·1
90·871		0			"	"	44·1
90·277	90·29	2	90·1	1	"	"	50·3
89·660		0			"	"	56·8
88·163	88·15	5	88·2	6	"	"	52·6
			87·7	1	"	"	77·
			87·3	1	"	"	82·
86·564	86·58	4	86·5	2	"	"	89·2
			86·0	1n	"	"	95·
			85·3	1	"	"	32403·
85·088		1			"	"	04·8

IRIDIUM—continued.

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda} -$	
Kayser	Exner and Haschek		Exner and Haschek				
3083·343	3083·37	4	3083·3	4	0·87	9·3	32422·9
83·085		1	83·0	4	"	"	25·7
82·823		0			"	"	28·4
		0	82·2	ln	"	"	35·
81·709		1	81·6	ln	"	"	40·2
			81·0	ln	"	"	48·
			80·2	1	"	"	56·
79·892		0	79·9	1	"	"	59·4
78·793		2			"	"	71·0
	78·70	1			"	"	71·9
77·996	78·00	1			"	"	79·4
	77·75	2	77·7	1	"	"	82·0
76·800	76·80	3	76·8	2	"	"	92·0
75·577		0	75·6	2	"	"	32504·9
			75·0	1	"	"	11·
74·864	74·87	2			"	"	12·4
			74·5	1	"	"	16·
73·800		0			"	"	23·7
73·390	73·42	2	73·5	2	"	"	27·9
72·904		0	72·7	1	"	"	33·2
			72·2	1	"	"	41·
72·078		0			"	"	42·0
			71·7	1	"	"	46·
			71·4	1	"	"	49·
			70·5	1	"	"	59·
69·825	69·82	3	69·9	1	"	"	65·9
69·220	69·18	4	69·2	6	"	"	72·5
69·005	69·00	5	69·0	6	"	"	74·6
68·507		1	68·6	1	"	"	79·8
			67·7	1	"	"	88·
			67·3	1	"	"	93·
66·760		0	66·5	1	"	"	98·4
66·167		0			"	"	32604·7
65·944		0	65·7	1	"	"	07·1
65·292	65·27	1			"	"	14·0
64·904		3	64·9	8	"	"	18·1
64·622	64·65	2			"	"	21·0
64·216		0	64·3	1	"	"	25·5
			61·6	2	0·86	"	53·4
61·515	61·53	3	61·5	1	"	"	54·2
			61·1	1	"	"	59·
60·950	60·96	2			"	"	60·2
60·460		0	60·1	1	"	"	65·5
60·114		1			"	"	69·2
59·858		1	59·9	1	"	"	71·9
			58·8	1	"	"	83·
58·438		0	58·5	1	"	"	87·1
58·087		0			"	"	90·8
			57·7	1	"	"	95·0
57·590		2			"	"	96·3
57·398	57·40	4			"	"	98·2
			57·3	1	"	"	99·3
56·770		0			"	"	32705·0
			55·4	ln	"	"	20·

IRIDIUM—continued.

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character			
Kayser	Exner and Haschek				$\lambda +$	$\frac{1}{\lambda}$	
3054.570		1			0.86	9.3	32728.5
54.351		0	3054.2	1	"	9.4	30.8
53.709	3053.70	2	53.7	1n	"	"	37.7
			53.2	1	"	"	43.
52.288	52.30	2	52.3	2	"	"	52.8
			51.5	1	"	"	61.
51.243	51.25	1	51.3	1	"	"	64.1
			50.6	1	"	"	71.
50.134		1	50.2	1	"	"	76.
49.559	49.52	5	49.4	1	"	"	82.4
48.783		1	48.9	1	"	"	89.6
47.904		1	48.0	1n	"	"	32800.0
47.277	47.27	5			"	"	06.8
45.768		0	45.7	1	"	"	23.8
			45.3	1	"	"	28.
44.255		0			"	"	39.4
43.671		0	43.6	1	"	"	45.7
42.760		2	42.7	8	"	"	55.5
42.429		0			"	"	59.1
41.979		1	42.0	1	"	"	63.9
			41.6	1	"	"	68.
41.056		1			"	"	73.9
			40.9	1	"	"	75.6
40.580	40.58	3			"	"	79.1
			40.0	1	"	"	85.
39.378	39.38	5	39.3	4	"	"	92.0
37.861	37.86	3	37.7	1	"	"	32908.5
			37.2	1	"	"	16.
36.361		0	36.5	1	"	"	25.8
			35.0	1	"	"	40.
34.675	34.66	2	34.6	1	"	"	43.1
			34.4	1	"	"	46.
			34.2	1	"	"	48.
33.744	33.75	2	33.7	1	"	"	53.1
			33.0	1	"	"	61.
32.528	32.55	2	32.6	1	"	"	66.3
30.568		0			"	"	87.7
30.365		1			"	"	89.9
29.487	29.50	5	29.5	2	"	"	99.4
26.489		1	26.5	4	"	"	33032.2
	25.99	3			"	"	37.6
			25.8	2	"	"	40.
			25.3	1	"	9.5	45.
			25.0	1	"	"	48.
24.410		2	24.4	1	"	"	54.8
			23.4	1	"	"	66.
			23.2	1	"	"	68.
22.807	22.81	2	22.7	1	0.85	"	72.3
22.536	22.54	2	22.5	1n	"	"	75.3
			21.6		"	"	86.
			21.1	1	"	"	91.
			20.7		"	"	95.
20.125	20.12	3	20.1	1	"	"	33101.7
19.350	19.35	3	19.2	2	"	"	09.2

IRIDIUM—*continued*.

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length				
Kayser	Exner and Haschek		Exner and Haschek	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
3018·151		2	3018·1	1n	0·85	9·5	33123·5
17·450	3017·43	4	17·4	1	"	"	31·2
			16·8	1	"	"	36·
16·550	16·55	3			"	"	40·9
			16·4	2	"	"	43·
			15·8	1	"	"	49·
			15·1	1	"	"	57·
14·854		1	14·9	1	"	"	59·6
14·585		1	14·6	1	"	"	62·5
			14·3	1	"	"	66·
			13·2	1	"	"	78·
12·984		1	13·0	1	"	"	80·2
12·695	12·71	2			"	"	83·3
			12·4	1	"	"	87·
11·812	11·84	3	11·7	1	"	"	92·9
10·020	10·03	2			"	"	33212·8
08·753		1	08·8	1	"	"	26·8
			08·5	1	"	"	30·
07·838		0			"	"	37·0
07·745		0	07·7	2	"	"	38·0
			06·5	1	"	"	52·
			06·3	1	"	"	54·
			05·7	1	"	"	61·
05·338	05·33	2			"	"	64·7
			05·1	1	"	"	67·
			04·7	1	"	"	72·
04·429		0			"	"	74·7
03·761	03·78	4	03·7	1	"	"	82·0
			03·2	1n	"	"	88·
02·375		1			"	"	97·5
			02·0	2	"	"	33302·
			01·6	1	"	"	06·
01·383		0			"	"	08·5
			01·2	1	"	"	10·
			01·0	1	"	"	12·
00·149	00·15	2	00·2	1	"	"	23·7
			2999·7	1	"	"	27·
2999·155		0	99·2	1n	"	"	33·2
			98·7	1	"	"	38·
			97·8	1	"	"	48·
	2997·54	3	97·6	2	"	9·6	51·1
97·314	97·31	2	97·4	1	"	"	53·6
96·785		0			"	"	59·5
96·202	96·20	4			"	"	66·0
			95·5	1n	"	"	74·
			94·8	1	"	"	82·
			94·7	1	"	"	83·
93·751		0	93·8	1	"	"	93·3
			93·5	1	"	"	96·
93·184		2	93·2	1n	"	"	99·6
			91·9	1n	"	"	33414·
91·520		1	91·7	1n	"	"	18·2
90·746	90·77	3	90·7	1	"	"	26·7
			90·1	1	"	"	34·

IRIDIUM—*continued.*

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character			
Kayser	Exner and Haschek		Exner and Haschek		$\lambda +$	$\lambda -$	
2988.335		0	2989.6	1	0.85	9.6	33440.
							53.8
			87.6	1	"	"	62.
			86.7	1	"	"	72.
85.921	2985.94	3	85.9	1	"	"	80.8
			83.8	1	"	"	33505.
			83.7	1 Fe ?	"	"	06.
82.962		0	82.9	1	0.84	"	14.1
			82.7	1	"	"	17.
	82.55	1	82.5	1	"	"	18.8
		2	81.8	1	"	"	27.
81.042		2			"	"	35.7
80.776	80.80	4			"	"	38.6
80.578		0			"	"	40.9
80.375		0			"	"	43.2
			80.0	1	"	"	47.
			79.8	1	"	"	50.
			79.2	1	"	"	56.
			78.5	2	"	"	64.
			78.2	1	"	"	68.
78.056		2	78.0	1	"	"	69.3
	77.80	1	77.6	1	"	"	72.2
			77.3	1	"	"	78.
76.857		0			"	"	82.9
			76.4	1	"	"	88.
			75.6	1n	"	"	97.
75.062		4			"	"	33603.1
	75.07	3	75.1	2	"	"	03.0
74.659	74.66	1	74.6	1	"	"	07.7
74.220	74.24	2	74.3	1	"	"	12.5
			74.2	1	"	"	13.
			73.7	1	"	"	19.
72.646		0	72.5	1n	"	"	30.4
71.205	71.20	2	71.6	2	"	"	46.8
			69.7	1	"	9.7	64.
	69.07	1	69.2	1	"	"	71.6
	68.60	1	68.7	1n	"	"	76.2
68.334	68.32	2	68.4	1	"	"	79.3
			67.8	1n	"	"	85.
67.360		0	67.4	1	"	"	90.3
			67.1	1	"	"	93.
66.245	66.24	2	66.3	1	"	"	33703.0
			65.7	1	"	"	09.
65.329	65.34	3	65.4	1	"	"	13.3
65.095		0			"	"	16.0
			64.3	2	"	"	25.
63.111	63.11	3	63.2	2	"	"	38.6
			63.1	1	"	"	39.
			62.7	1	"	"	43.
62.580		1			"	"	44.7
			61.8	1	"	"	54.
61.595	61.59	2	61.7	1	"	"	55.9
61.009	61.03	1	61.2	1	"	"	62.4
			60.3	2	"	"	70.

IRIDIUM—continued.

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$1 - \lambda$	
Kayser	Exner and Haschek		Exner and Haschek				
2959.573		0			0.84	9.7	33778.9
59.049		0	2959.2	1	"	"	83.
56.699		0			"	"	84.9
			56.7	1	"	"	33811.8
			56.0	1	"	"	20.
			55.5	1n	"	"	26.
54.909		1	54.9	4	"	"	32.3
53.205		0	54.6	1 Fe?	"	"	52.
52.686		0	52.7	1n	"	"	57.8
51.363	2951.35	8	51.3	4	"	"	72.9
51.266		2			"	"	74.1
50.883	50.89	2			"	"	78.4
50.606	50.61	1	50.6	1	"	"	81.6
			50.4	1	"	"	84.
49.882	49.89	3	49.8	1	"	"	89.7
			48.5	1n	"	"	33906.
	47.48	1			"	"	17.6
47.093	47.10	3	47.1	2	"	"	22.0
			45.7	1	"	"	38.
			44.0	1	"	9.8	58.
43.287	43.30	8	43.3	4	"	"	65.4
			42.7	1	0.83	"	72.
41.197	41.20	2	41.2	1	"	"	90.0
40.669	40.66	3	40.7	2	"	"	96.1
40.548		0			"	"	97.5
39.390	39.40	3	39.4	4	"	"	34010.8
			39.2	1	"	"	13.
38.877	38.87	1			"	"	16.8
38.606	38.60	3			"	"	19.9
38.097		0			"	"	25.2
37.656		0			"	"	30.9
37.371		0	37.3	1	"	"	34.2
36.814	36.85	8	36.7	4	"	"	40.5
	36.20	1n	36.2	1	"	"	47.8
35.427		0			"	"	56.8
35.305	35.30	1	35.3	1	"	"	58.2
34.748	34.76	6	34.7	4	"	"	64.6
33.252	33.25	1	32.7	1	"	"	82.1
			32.7	1	"	"	88.
		0	32.2	1	"	"	94.
31.821		0			"	"	98.7
30.743	30.75	2	30.7	1	"	"	34111.2
30.298	30.30	1	30.3	1	"	"	16.4
			29.8	4	"	"	22.
27.833		0			"	"	45.1
			27.7	1	"	"	47.
27.129	27.14	1	27.1	1	"	"	53.3
			26.7	1	"	"	58.
26.212		0	26.2	1	"	"	64.1
			25.2	4	"	"	76.
24.912	24.94	10	24.9	4	"	"	79.1
			24.0	1	"	"	90.
21.237		0	21.3	2	"	9.9	34222.2
			20.9	1	"	"	26.

IRIDIUM—continued.

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character			
Kayser	Exner and Haschek		Exner and Haschek		$\lambda +$	$\frac{1}{\lambda} -$	
2919·299		0	2919·9	1	0·83	9·9	34238·
18·683	2918·69	3	19·3	4	"	"	44·9
			18·7	4	"	"	52·1
			18·1	1	"	"	59·
17·885	17·86	1	17·9	1	"	"	61·6
			16·8	1	"	"	74·
16·479	16·49	4	16·4	4	"	"	78·0
15·793		0	15·7	1	"	"	86·1
15·625		0			"	"	88·1
			14·1	2	"	"	34306·
			13·9	1	"	"	08·
			13·7	1	"	"	11·
13·592		0			"	"	12·0
	12·36	1 Pt?	12·4	1	"	"	26·5
			11·4	1	"	"	38·
			10·7	1n	"	"	46·
09·912		0			"	"	55·4
09·669	09·66	2	09·6	1	"	"	58·3
			08·8	1	"	"	68·
			08·4	1	"	"	73·
			07·7	1n	"	"	81·
07·353	07·36	3	07·3	1	"	"	85·6
			06·5	1n	"	"	96·
			06·0	1	"	"	34402·
05·774	05·75	2	05·7	1	"	"	04·5
04·913	04·93	4	04·9	1	"	"	14·5
03·995		0			"	"	25·4
03·852		0	03·7	1n	0·82	"	27·1
			03·4	1n	"	"	32·
02·430		0			"	"	44·1
	02·09	3	01·9	1	"	"	48·0
			01·2	1	"	"	59·
00·492	00·50	1	00·4	1	"	"	68·0
00·165		0			"	"	70·9
2899·733	2899·74	2	2899·6	1	"	"	76·0
99·055		0			"	"	84·1
98·455		2	98·5	1n	"	"	91·2
			98·0	1	"	"	97·
97·783		0			"	"	99·2
97·260	97·27	5	97·1	2	"	"	34505·4
	97·07	1			"	10·0	07·6
95·705		0	95·7	1	"	"	23·9
94·388		0			"	"	39·6
			94·0	1	"	"	44·2
93·785		0			"	"	46·8
92·371		1	92·3	1	"	"	63·7
			91·7	1	"	"	72·
90·634		0			"	"	84·5
89·688		1	89·7	1	"	"	95·8
			88·3	1	"	"	34612·
87·240		2			"	"	25·1
			86·9	1	"	"	29·
85·615		0			"	"	44·7
			85·4	1b	"	"	47·

IRIDIUM---continued.

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character			
Kayser	Exner and Haschek		Exner and Haschek		$\lambda +$	$1 - \lambda$	
			2884.7	1	0.82	10.0	34656.
			84.2	1			62.
2883.549	2883.55	1	83.5	1	"	"	69.5
82.970		0			"	"	76.
82.742	82.77	5	82.6	1	"	"	79.0
			82.2	1	"	"	86.
			81.7	1	"	"	92.
81.270	81.30	2	81.1	1	"	"	96.7
80.324	80.29	1	80.2	1	"	"	34708.5
80.174		0	80.1	1	"	"	10.1
79.878		0			"	"	13.7
79.515	79.51	3	79.5	1	"	"	18.1
78.632		2	78.7	1n	"	"	28.7
77.781	77.79	4	77.7	1	"	"	38.9
77.108		0	77.1	1	"	"	47.1
76.096	76.10	4	76.1	2	"	"	59.3
75.721	75.72	4	75.7	2	"	"	63.9
	75.10	1			"	"	71.4
73.929		0	73.8	1	"	"	85.6
	73.46	2	73.4	1	"	"	91.2
72.227		0			"	"	348062.
			71.9	1	"	"	10.
			71.7	1	"	"	13.
			71.2	1	"	"	19.
			71.1	1	"	"	20.
70.698		0			"	"	24.8
70.304		0	70.2	1n	"	"	29.5
69.815	69.80	2			"	"	35.5
			69.6	1	"	"	38.
	68.70	1			"	10.1	48.9
			67.8	1	"	"	60.
66.798	66.76	3	66.7	1	"	"	72.3
			65.6	1	"	"	87.
63.955	63.95	3			0.81		34906.7
			62.8	1	"	"	21.
	62.60	1	62.6	1	"	"	23.2
62.455	62.49	1n			"	"	24.7
			61.0	1n	"	"	43.
60.767	60.77	2	60.7	1	"	"	45.5
			60.4	1	"	"	50.
60.126		0			"	"	53.4
			60.0	1	"	"	55.
			59.4	1	"	"	62.
59.138		0			"	"	65.5
			58.9	1	"	"	68.
			58.5	1 Fe ?	"	"	73.
57.058	57.05	1	57.0	1	"	"	91.0
56.048	56.03	1	56.1	1n	"	"	35003.4
55.931	55.96	1			"	"	04.6
			55.7	1	"	"	08.
			55.5	1	"	"	10.
54.722		0			"	"	19.6
53.416	53.43	1	53.5	1	"	"	35.5
52.605		0	52.6	1	"	"	45.6

IRIDIUM—continued.

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity			
Kayser	Exner and Haschek		Exner and Haschek	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
2851·648	2851·65	1n	2852·3	1	0·81	10·1	35049·
51·518	51·56	1n	51·6	1	"	"	57·3
51·161		0	50·8	1	"	"	58·7
50·906		0			"	"	63·3
			50·5	1n	"	"	66·5
49·848	49·86	8	49·7	6	"	"	81·
49·557		0			"	"	79·4
48·557		0	48·4	1	"	"	83·1
46·753		0	46·8	1	"	10·2	95·4
			46·5	1	"	"	35117·5
			46·3	1	"	"	21·
45·245		1			"	"	23·
45·009		0	44·6	1	"	"	36·0
42·390	42·40	2			"	"	39·2
			42·1	1	"	"	71·4
41·798	41·80	1			"	"	75·
			41·6	1	"	"	78·8
40·332	40·35	4			"	"	81·
			40·2	4	"	"	96·8
39·287	39·32	6			"	"	99·
			39·2	4	"	"	35209·7
			38·3	1n	"	"	11·
37·421	37·42	3			"	"	21·
			37·2	2	"	"	33·1
36·506	36·51	4			"	"	36·
36·197	36·21	1			"	"	44·4
35·762	35·75	3	35·7	1	"	"	48·2
35·408		0			"	"	53·8
		0	34·2	1	"	"	58·1
33·777		0			"	"	73·1
33·337	33·35	3	33·2	8	"	"	78·4
32·874		2	32·6	1	"	"	83·8
31·912	31·93	1	31·8	1	"	"	89·6
31·455	31·46	1			"	"	35301·5
30·964					"	"	07·3
30·601	30·57	2	30·4	1n	"	"	13·4
30·264		3			"	"	18·2
29·720	29·73	1	29·8	1	"	"	21·2
27·259	27·27	1	27·2	1	"	"	28·9
26·316		0	26·3	1n	"	"	59·7
			25·7	1	"	"	71·6
			25·5	1	"	"	79·
24·546	24·59	6	24·4	2	0·80	"	82·
24·228		1			"	"	93·4
23·831		0	23·7	1	"	"	97·7
23·280	23·34	4	23·3	1	"	10·3	35402·7
20·738		2	20·6	1	"	"	09·1
20·614		0			"	"	41·4
19·848		0	19·8	1n	"	"	43·0
			19·3	1	"	"	52·4
			17·6	1	"	"	60·
17·284		0			"	"	81·
17·039	17·04	1	17·0	1	"	"	84·9
					"	"	88·4

IRIDIUM—continued.

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character			
Kayser	Exner and Haschek		Exner and Haschek		$\lambda +$	$\frac{1}{\lambda}$	
2816·409		0	2816·5	1	0·80	10·3	35495·9
15·744		0	15·9	1	"	"	35504·3
			15·5	1n	"	"	07·
14·966	2815·00	1	15·0	1	"	"	14·1
14·532	14·52	1	14·5	1	"	"	19·8
			14·1	1	"	"	26·
			13·6	1	"	"	31·
			13·3	1	"	"	35·
12·896	12·91	2	12·7	1	"	"	40·2
			12·0	2	"	"	52·
			11·4	1	"	"	59·
			11·3	1n	"	"	60·
10·657	10·65	1	10·5	1	"	"	68·6
			08·7	1	"	"	93·
08·249		0	08·1	1	"	"	99·1
07·754	07·75	1	07·6	1	"	"	35605·4
06·772		0			"	"	17·8
06·479	06·50	1	06·3	1b	"	"	21·4
			05·8	1b	"	"	30·
04·300		0	04·6	2	"	"	49·2
			03·2	1	"	"	63·
			02·7	2	"	"	70·
			01·9	1	"	"	80·
			01·5	1	"	"	85·
			01·1	1	"	"	90·
00·923	00·91	3			"	"	92·3
00·755		1	00·6	4	"	"	94·4
2799·835	2799·84	2	2799·6	1	"	"	35706·1
99·522		0			"	10·4	10·0
			99·3	1	"	"	13·
			98·7	1n	"	"	20·
98·283	98·29	4	98·1	2	"	"	25·7
	97·82	5	97·6	2n	"	"	31·7
97·456	97·45	4	97·3	2	"	"	36·5
96·558	96·55	2	96·3	1	"	"	47·9
			95·7	1n	"	"	59·
			95·4	2	"	"	63·
94·189	94·20	1			"	"	78·1
93·907		0	93·6	2n	"	"	85·7
			92·2	1	"	"	35804·
			91·4	1n	"	"	14·
90·795		0	90·6	1	"	"	21·7
			90·2	1	"	"	29·
			89·7	1	"	"	36·
			89·4	1n	"	"	40·
89·066		0	89·1	1	"	"	43·9
			88·5	1n	"	"	51·
87·687		0	87·8	1	"	"	61·6
			87·4	1	"	"	65·
87·099		1			"	"	69·2
			86·3	1	"	"	79·
			85·9	1	"	"	85·
			85·6	1	"	"	89·
85·319	85·33	3			"	"	92·1

IRIDIUM—*continued.*

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character			
Kayser	Exner and Haschek		Exner and Haschek		$\lambda +$	$\lambda -$	
			2785.2	1	0.80	10.4	35894.
2783.797		0			0.79	"	35911.8
83.492		0	83.5	1	"	"	15.7
			83.1	1	"	"	21.
82.885		0	82.5	1n	"	"	23.5
					"	"	27.5
82.342		0			"	"	30.5
			81.7	1	"	"	39.
81.401	2781.42	4	81.3	2	"	"	42.6
81.047	81.07	1	81.0	1	"	"	47.1
80.507	80.55	1			"	"	54.0
79.752		1	79.3	1	"	"	69.9
			78.6	1	"	"	79.
			76.0	1	"	"	87.
77.645					"	"	91.3
77.536	77.55	2	77.4	1	"	"	92.6
77.149		-			"	"	97.7
			76.3	1	"	"	36009.
75.646	75.65	3	75.5	2	"	"	17.2
75.073	75.09	1	74.9	6	"	10.5	24.5
74.685	74.73	1			"	"	29.3
	74.05	1	73.8	1	"	"	37.9
			73.5	1	"	"	45.
			73.0	1	"	"	52.
72.547	72.58	3	72.5	1	"	"	57.2
71.711	71.76	3			"	"	67.0
			69.6	1	"	"	96.
			69.3	1	"	"	36100.
			68.8	1	"	"	06.
			68.5	1	"	"	10.
67.764	67.76	1	67.6	1	"	"	19.8
67.423	67.47	2			"	"	23.9
			66.9	1	"	"	31.
			66.3	1	"	"	39.
			65.9	1	"	"	44.
			65.4	1	"	"	51.
			65.2	1	"	"	53.
			64.8	1	"	"	58.
			64.1	1	"	"	68.
			63.9	1	"	"	70.
			63.5	1	"	"	76.
63.287		0	63.3	2	"	"	78.3
			62.7	2	"	"	86.
			62.1	1n	"	"	94.
61.700		0			"	"	99.1
61.227		0	61.3	1n	"	"	36205.3
60.474		0			"	"	15.2
60.207		0	60.6	1	"	"	18.7
60.009	60.00	2			"	"	21.4
			59.8	1	"	"	24.
59.405	59.42	2	59.4	1	"	"	29.1
59.100	59.11	1n			"	"	33.5
			58.8	1n	"	"	37.
			58.4	1	"	"	42.

IRIDIUM—continued.

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Exner and Haschek		Exner and Haschek	and Character			
2758·325	2758·33	2			0·79	10·5	36243·4
			2758·2	1	"	"	45·
			57·6	1	"	"	53·
			56·6	1	"	"	66·
56·206	56·20	1			"	"	71·3
			56·0	1	"	"	74·
			55·8	1	"	"	77·
			55·2	1	"	"	85·
			54·6	1	"	"	92·
53·954		0	53·8	2	"	"	36300·9
			53·2	1	"	"	11·
			52·8	2	"	"	16·
			52·3	1	"	"	23·
			51·8	1	"	"	29·
			50·8	1	"	10·6	43·
			50·0	1n	"	"	53·
			49·3	1	"	"	62·
49·075		0			"	"	65·3
			48·8	1	"	"	69·
48·395		0	48·3	1	"	"	74·3
			48·0	1	"	"	80·
47·602	47·62	1			"	"	94·7
47·383		0			"	"	87·7
			46·1	1	"	"	36405·
			45·5	1	"	"	13·
			45·2	1	"	"	17·
			44·5	1	"	"	26·
44·091	44·09	3	44·1	2	"	"	31·3
43·769		0	43·9	1	"	"	35·6
43·477		0	43·5	2	"	"	39·5
40·432		1			0·78	"	80·0
40·267	40·22	1			"	"	82·5
40·166	40·16	1			"	"	83·6
40·085	40·08	1			"	"	84·7
39·413	39·39	1	39·4	2	"	"	93·7
			39·3	1	"	"	95·
38·875		0	38·7	1	"	"	36500·7
			38·4	1	"	"	07·
			37·6	1n Rh ?	"	"	18·
	37·38§	2	37·3	1	"	"	20·7
			36·8	1	"	"	28·
36·509		0			"	"	32·3
			36·3	1	"	"	35·
	35·78	1n	35·7	1	"	"	42·1
			35·3	1	"	"	48·
35·165		1			"	"	50·3
			35·0	1n	"	"	52·
34·596		0			"	"	58·1
			34·3	1	"	"	62·
	34·03	5			"	"	65·4
			33·4	2	"	"	74·

§ Occurs also in Pt.

|| Occurs also in Pt and Pd.

IRIDIUM—continued.

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo	
Wave-length		Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\lambda -$		
Kayser	Exner and Haschek		Exner and Haschek					
2732.752	2732.75	2	2732.5	4	0.78	10.6	36582.6	
31.954	30.79	0			"	"	"	86.
					"	"	"	93.2
				31.2	1	"	"	36603.
			31.1	1	"	"	05.	
		2			"	"	08.8	
30.500		0			"	"	12.7	
29.638	29.64	1	29.6	1	"	"	24.3	
			28.8	1	"	"	35.	
			28.6	1	"	"	38.	
28.494		1			"	"	39.6	
28.224		0			"	"	43.2	
			28.0	1	"	"	46.	
			27.6	2	"	"	51.	
			26.9	1	"	10.7	61.	
26.566	26.56	1	26.6	1	"	"	65.5	
			25.6	1	"	"	78.	
			25.3	1	"	"	83.	
24.884		0	24.8	1	"	"	88.1	
23.849	23.85	2			"	"	36702.1	
	23.68	2	23.7	1	"	"	04.3	
23.248		0	23.3	1	"	"	10.2	
			22.7	1	"	"	18.	
			22.3	1	"	"	23.	
21.443		0			"	"	34.5	
			20.9	1n	"	"	42.	
20.534	20.55	2	20.4	1	"	"	46.7	
19.906		0			"	"	55.3	
			18.9	1	"	"	69.	
			18.6	1n	"	"	73.	
17.730		0			"	"	84.7	
16.612		0	16.6	1	"	"	99.9	
			16.5	1	"	"	36801.	
			16.1	1n	"	"	07.	
			15.2	1	"	"	19.	
		1			"	"	26.5	
14.643	13.95	1	14.1	4	"	"	35.9	
13.195		1			"	"	46.2	
12.817	12.82	3	12.8	1	"	"	52.7	
			12.3	1	"	"	58.	
			12.0	1	"	"	62.	
11.402		0	11.6	1	"	"	70.6	
			10.8	1	"	"	79.	
			10.6	1	"	"	81.	
10.177	10.18	1	10.3	1	"	"	87.2	
			09.5	1	"	"	96.	
			09.2	1	"	"	36900.	
			08.8	1	"	"	06.	
08.752		0	08.7	2	"	"	06.7	
			07.9	1	"	"	18.	
			07.7	1	"	"	21.	
07.265		0	07.3	1	"	"	26.9	
06.985		0	07.1	1	"	"	30.8	
05.632	05.65	1	05.5	1	"	"	49.1	

From "NATURE" (Dec. 5th, 1907).

"We have recently had an opportunity of inspecting and testing the binocular diffraction spectroscope patented and sold by Dr. Marshall Watts, and have found it to be a remarkably efficient instrument for the spectroscopic investigation of light-sources of definite form, such as vacuum tubes. It consists of an ordinary good field-glass having attached in front of each object-glass a transparent diffraction grating mounted on optically worked plane glass. In examining a luminous vacuum tube we found that the bright lines apparently stood out in relief, whilst the illumination, even in the second and third orders, was very satisfactory. The first-order spectrum of Capella, on by no means a perfect night, was seen as quite a bright colour band. For the examination of broader light-sources, such as flames or arcs, a metal or ebonite plate with a slit in it may be usefully employed in order to obtain a purer spectrum. The price of the binocular spectroscope is £3 3s., and further details of the instrument may be obtained from Dr. Watts, "Shirley," Venner Road, Sydenham."

Sir W. HUGGINS says:—

"I am very pleased with your spectroscopic opera-glass. It does all that you say of it. The whole visible spectrum of a vacuum tube, or of an induction spark, is seen at once, brilliantly, and with great distinctness."

"We have recently had an opportunity of inspecting and testing the Spectral Diffraction Spectroscope patented and sold by the Mitchell-Watts and have found it to be a remarkably efficient instrument for the spectroscopic investigation of light sources of variable form and arrangement. It consists of an ordinary round held-glass having attached in front of each object a transparent diffraction grating mounted on optically worked glass bases. In examining a luminous vacuum tube we found that the light from these apparently stood out in sharp white lines, the illumination even in the second and third orders was very satisfactory. The first-order spectrum of Gasoline on its incandescent burner was seen as quite a bright white band. For the examination of incandescent bodies, such as luminous rays or small or large plates with oil, it may be readily employed in order to obtain a pure spectrum. The price of the Spectral Spectroscope is £3 3s. and further details of the instrument may be obtained from Mr. Watts, 'Spectral' Vacuum Tube, Sydney."

Sir W. HUGGINS says—

"I am very pleased with your Spectral Spectroscope. It does all that you say of it. The whole visible spectrum of a vacuum tube or of an incandescent spark is seen at once, brilliantly, and with great distinctness."

IRIDIUM—continued.

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character			
Kayser	Exner and Haschek		Exner and Haschek		$\lambda +$	$\lambda -$	
2705.453		0			0.78	10.7	36951.7
05.296					"	"	53.8
05.213	2705.21	1n			"	"	55.0
	05.02	1	2705.1	1	"	"	57.8
			04.8	1n	"	"	61.
04.722		0			"	"	61.7
04.117	04.12	2	04.0	1	"	"	69.9
			02.8	1	"	"	88.
			01.7	1	"	10.8	37003.
			01.4	1	"	"	07.
01.200	01.21	1n			"	"	09.7
			01.1	1	"	"	11.
			00.5	1	"	"	19.
2698.688		2	2698.7	1	0.77	"	44.2
			98.1	1	"	"	52.
			97.5	1	"	"	60.
			97.2	1	"	"	64.
			96.9	1	"	"	69.
96.010	96.04	1			"	"	80.8
95.550	95.57	1n	95.6	1	"	"	87.2
			95.1	1	"	"	94.
94.320	94.33	5	94.3	2	"	"	37104.2
93.571	93.60	1	93.5	1	"	"	13.8
			93.4	1	"	"	17.
92.964	92.99	1			"	"	22.8
			92.8	1n	"	"	25.
92.429	92.45	3b ^r	92.4	1	"	"	30.2
92.267		0	92.2	1	"	"	32.6
91.998		0			"	"	36.3
			91.5	1	"	"	43.
91.154	91.19	1			"	"	47.7
			90.7	2	"	"	54.
89.769		0			"	"	67.3
88.381		0	88.2	1	"	"	86.3
			87.6	1	"	"	97.
			87.1	1	"	"	37204.
			86.8	1	"	"	08.
			86.3	1	"	"	15.
			85.7	1	"	"	23.
			85.1	1	"	"	32.
			84.8	1	"	"	36.
	84.15	2	84.0	2	"	"	44.9
83.387		0	83.2	1	"	"	55.5
			82.8	1	"	"	64.
82.536	82.55	1	82.6	1	"	"	67.3
			82.2	1	"	"	72.
81.184	81.22	1	81.3	1	"	"	85.9
			80.5	1	"	"	96.
			80.1	1	"	"	37301.
79.506	79.51	1	79.3	1	"	"	09.5
	79.17	2			"	"	13.2
			78.7	1	"	10.9	21.
			78.3	1	"	"	26.
77.899		0	77.7	1	"	"	31.8

IRIDIUM—*continued.*

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character			
Kayser	Exner and Haschek		Exner and Haschek		$\lambda +$	$\lambda -$	
2676·911	2676·93	2	2676·7	1	0·77	10·9	37345·5
			76·2	1	"	"	55·
			75·7	1	"	"	62·
75·376		0	75·4	1	"	"	67·0
			75·2	1	"	"	69·
			74·3	1	"	"	82·
73·694	73·70	3	73·8	1	"	"	90·5
			73·5	2	"	"	93·
72·888		0	73·0	1	"	"	37401·8
71·930	71·93	4	71·9	1	"	"	15·2
70·006	70·01	4	70·0	1	"	"	42·2
	69·56	1	69·5	1	"	"	48·5
69·070	69·09	2	69·0	1	"	"	55·2
			68·5	1	"	"	63·
68·362		0			"	"	
			68·2	1	"	"	67·
			67·9	1	"	"	72·
67·540	67·54	1	67·5	1	"	"	76·8
			66·6	1	"	"	90·
	66·50	1			"	"	91·4
			66·4	1	"	"	93·
			65·7	1	"	"	37502·
65·144		0			"	"	10·5
64·871	64·87	5	64·9	2	"	"	14·4
			64·6	2	"	"	18·
63·400	63·42	2	63·5	1	"	"	34·9
62·706	62·71	3	62·7	1	"	"	44·8
62·080	62·10	5	62·2	1	"	"	53·6
			61·7	1	"	"	59·
			61·3	2	"	"	65·
60·163		0			"	"	80·8
60·040		0			"	"	82·5
			59·7	ln	"	"	87·
			58·3	ln	"	"	37607·
57·993		0			"	"	11·5
57·799	57·82	1	57·7	1	"	"	14·2
			57·6	1	"	"	17·
56·898	56·91	2	56·8	1	"	"	26·4
			56·2	1	"	"	37·
			56·1	1	"	"	38·
			55·7	ln	"	"	44·
54·670		0	54·7	ln	0·76	11·0	58·6
54·033	54·05	2	53·9	1	"	"	67·5
53·853	53·86	2	53·9	1	"	"	70·1
			53·7	1	"	"	72·
			53·2	1	"	"	79·
53·124	53·13	1			"	"	80·5
			53·0	1	"	"	82·
	52·76	ln			"	"	85·6
	52·60	ln			"	"	87·9
			52·1	1	"	"	95·
			51·8	1	"	"	99·
			51·4	1	"	"	37705·
			50·7	1	"	"	15·

IRIDIUM—continued.

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda} -$	
Kayser	Exner and Haschek		Exner and Haschek				
2650·584		0	2650·5	1	0·76	11·0	37716·5
			50·2	1	"	"	22·
			49·7	1n	"	"	29·
			48·7	1	"	"	43·
			48·4	1	"	"	48·
			47·3	1n	"	"	63·
			46·8	1	"	"	70·
46·334	2646·35	1			"	"	77·0
			46·1	1	"	"	80·
			45·8	1	"	"	85·
			45·7	1	"	"	86·
			45·3	1	"	"	92·
			44·5	1	"	"	37803·
44·279	44·28	2			"	"	06·4
			44·1	1	"	"	09·
			43·5	1n	"	"	18·
			43·3	1n	"	"	20·
			41·5	1	"	"	46·
			41·0	1	"	"	53·
40·462	40·45	1	40·4	1	"	"	62·2
	39·80	4	39·8	4	"	"	70·7
39·510	39·51	2	39·4	1	"	"	74·8
39·073	39·06	1			"	"	81·2
			38·7	1	"	"	86·
			38·3	1	"	"	92·
			37·8	1	"	"	99·
			37·5	1	"	"	37904·
37·407		0			"	"	05·0
			37·3	1	"	"	07·
36·967		0			"	"	11·4
			36·7	1	"	"	15·
			36·4	1	"	"	20·
			35·7	1	"	"	30·
35·353	35·35	2			"	"	34·6
			35·1	1	"	"	38·
34·513		0			"	"	46·7
34·340	34·33	3	34·2	2	"	"	55·2
			33·1	1	"	"	67·
			30·5	1	"	11·1	38004·
			30·0	1	"	"	12·
29·498	29·49	1	29·4	1	"	"	19·0
			29·1	1	"	"	25·
			28·7	1	"	"	31·
28·271		0			"	"	36·7
			28·0	1	"	"	41·
			27·1	1	"	"	54·
26·844	26·85	2			"	"	57·4
			25·6	1	"	"	76·
25·396	25·43	2			"	"	78·1
			24·6	1	"	"	90·
			24·1	1	"	"	97·
23·736	23·75	1n			"	"	38102·4
			23·5	1	"	"	06·
			23·0	1	"	"	13·

IRIDIUM—continued.

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character			
Kayser	Exner and Haschek		Exner and Haschek		$\lambda +$	$\frac{1}{\lambda}$	
2622.203		0			0.76	11.1	38124.8
21.610		0	2621.6	1	"	"	33.4
			21.1	1	"	"	41.
			20.6	1	"	"	48.
20.102	2620.00	2	19.9	1	"	"	56.1
19.967		2	18.7	1b	"	"	57.3
					"	"	76.
18.352		0			"	"	80.5
17.872	17.86	3	17.8	1	"	"	87.8
17.514		0			"	"	93.1
17.177		0	17.1	2	"	"	98.0
			16.3	1	"	"	38211.
			16.2	1	"	"	12.
16.090	16.08	1			"	"	14.0
	16.00	1	15.8	1	"	"	15.2
			15.5	1	"	"	23.
15.064	15.06	2	15.1	1	"	"	28.9
			14.9	1	"	"	31.
14.287	14.27	1	14.1	1	"	"	40.4
			13.7	1	"	"	49.
12.344	12.35	1	12.2	1	"	"	68.6
12.136	12.13	1	12.2	1	"	"	71.8
			11.8	1	"	"	77.
11.384	11.40	3	11.4	2	"	"	82.7
			10.5	1n	"	"	96.
10.198		0	10.0	1	0.75	"	38300.2
09.996		0			"	"	03.1
			09.8	1	"	"	06.
08.314	08.30	3	08.1	2	"	11.2	27.8
					"	"	31.
07.608	07.60	2			"	"	38.2
			07.3	1	"	"	43.
			07.0	1	"	"	47.
06.668		0			"	"	51.9
			06.4	2	"	"	56.
06.081		0			"	"	60.5
04.645	04.64	1			"	"	81.7
			04.5	1	"	"	84.
			04.1	1	"	"	90.
			03.8	1n	"	"	94.
			02.8	1	"	"	38409.
02.122	02.15	1			"	"	18.8
			02.0	1	"	"	21.
			00.9	1	"	"	37.
			00.7	1	"	"	40.
2599.224		0	2599.4	2	"	"	61.8
99.129	2599.15	2			"	"	63.1
			99.0	2	"	"	65.
			98.3	2	"	"	76.
			97.5	1	"	"	86.
95.914	95.93	1n			"	"	38510.8
			95.7	4	"	"	14.
95.188		0	95.2	1	"	"	21.7
			94.6	1	"	"	30.

IRIDIUM—continued.

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character			
Kayser	Exner and Haschek		Exner and Haschek		$\lambda +$	$\frac{1}{\lambda} -$	
2593·224		1	2593·0	1	0·75	11·2	38550·8
			92·7	1	"	"	54·
92·146	2592·15	3	92·0	2	"	"	59
91·927		1			"	"	66·8
			91·5	1	"	"	70·1
91·129		1			"	"	76·
			91·0	2	"	"	82·0
			90·5	1	"	"	84·
90·296		0			"	"	91·
			90·1	1	"	"	94·4
			89·6	1	"	"	97·
89·470		0			"	"	38605·
89·231		0			"	"	06·7
89·057		0	89·1	1	"	"	10·3
			88·5	1	"	11·3	12·9
			87·5	1	"	"	21·
			87·1	1	"	"	36·
86·146	86·14	1	86·0	8	"	"	42·
84·867		0	84·8	1	"	"	56·3
			83·6	1	"	"	75·4
83·261	83·26	1	83·0	1	"	"	94·
			81·8	1	"	"	99·5
81·523		0			"	"	38721·
81·019		0	81·2	1	"	"	25·5
79·860		0			"	"	33·1
79·573		2	79·6	6	"	"	50·5
			79·4	6	"	"	54·8
79·008	79·00	2			"	"	57·
78·794	78·78	2	78·8	1	"	"	63·4
			78·6	1	"	"	66·6
			78·2	1	"	"	69·
77·622		0	77·8	1	"	"	75·
	77·35	3			"	"	84·1
			75·2	1	"	"	88·2
			74·5	1	"	"	38821·
			74·2	1	"	"	31·
73·338		0	73·5	1	"	"	36·
72·784	72·79	2	72·7	2	"	"	48·7
72·459	72·47	1	72·5	1	"	"	57·0
72·156	72·16	1	72·2	1	"	"	61·9
			71·9	1	"	"	67·6
	70·70	1			"	"	70·
			70·5	1	"	"	88·6
69·962	69·97	2			"	"	91·6
68·407		0	68·6	1	"	"	99·7
			68·1	1	"	"	38923·3
			67·6	1	"	"	28·
			67·0	1	"	"	35·
			66·7	1	"	"	45·
66·442		0			"	"	49·
			66·2	1n	"	"	53·1
			65·3	1n	"	"	57·
64·922		0			0·74	"	70·
						"	76·1

IRIDIUM—*continued*.

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character			
Kayser	Exner and Haschek		Exner and Haschek		$\lambda +$	$\frac{1}{\lambda}$	
2564.253	2564.27	2	2564.4	1	0.74	11.3	38984.1
							86.5
63.365	63.36	1	64.0	2	"	"	90.
62.999		0	63.3	1n	"	"	99.9
					"	"	39005.3
			62.8	2	"	"	08.
			62.5	1	"	"	13.
			61.8	1	"	"	24.
			61.7	1	"	"	25.
			61.1	2	"	"	34.
			60.1	1n	"	"	50.
59.643		0			"	"	56.5
58.821		0	59.2	1	"	"	63.
					"	"	69.1
			58.3	4	"	"	77.
57.285		0	57.7	1	"	"	86.
56.860		1	57.2	1	"	"	92.6
					"	"	99.1
55.955	55.95	1	56.5	1	"	"	39104.6
					"	"	13.0
55.425		2	55.6	1	"	"	18.
					"	"	21.0
54.480	54.47	2	55.1	1	"	"	26.
					"	"	35.6
			54.1	4	"	"	41.
			53.6	1	"	"	49.
51.475	51.50	2			"	"	81.4
			51.2	1	"	"	86.
50.987		0			"	"	89.1
			49.4	1	"	"	39214.
			49.3	1	"	"	15.
			49.0	1	"	11.5	20.
			48.0	1	"	"	35.
	47.76	1	47.6	1	"	"	38.7
			47.5	1	"	"	41.
47.278	47.26	1	47.2	1n	"	"	46.2
45.868		0	45.9	1	"	"	67.8
45.620	45.62	1			"	"	71.7
			44.4	1	"	"	91.
44.059	44.08	4			"	"	95.6
			43.9	2	"	"	98.
			43.5	1	"	"	39304.
			43.2	1	"	"	09.
			42.7	1	"	"	17.
42.097	42.11	2			"	"	26.0
			41.7	1	"	"	32.
41.556	41.56	1			"	"	34.6
			41.3	1	"	"	38.
			40.8	1	"	"	46.
40.483	40.49	1	40.5	1	"	"	51.1
			40.3	1	"	"	54.
			39.6	1	"	"	65.
38.949		0			"	"	74.9
			38.7	1	"	"	79.

IRIDIUM—continued.

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character			
Kayser	Exner and Haschek		Exner and Haschek		$\lambda +$	$\lambda -$	
2538·548		0			0·74	11·5	39381·1
			2538·2	1	"	"	86·
37·770	2537·78	1			"	"	93·1
			37·6	1	"	"	96·
37·309	37·30	2			"	"	39400·4
			37·1	1	"	"	04·
36·760		0	36·7	1	"	"	08·9
			36·2	1	"	"	18·
			36·0	1	"	"	21·
			35·3	1 _n	"	"	32·
34·103		0	34·2	2	"	"	50·2
			33·7	1	"	"	56·
			33·4	1	"	"	61·
	33·24	3			"	"	63·6
			33·0	2	"	"	67·
	32·63	1			"	"	73·1
32·290	32·29	1 _n	32·3	1	"	"	78·4
			32·0	1	"	"	83·
			31·7	1	"	"	88·
			31·1	1	"	"	97·
30·786		0	30·8	1	"	"	39502·1
30·498		0	30·4	2	"	"	06·4
30·200		0			"	11·6	11·0
29·870		0			"	"	16·1
29·559	29·56	2	29·6	1	"	"	21·0
			29·4	1	"	"	23·
			28·4	2	"	"	39·
28·011		0			"	"	45·1
27·868		0	27·7	1	"	"	47·4
			27·4	1	"	"	55·
26·856		0	26·7	1	"	"	63·1
			26·5	1	"	"	69·
			25·7	4	"	"	81·
			25·3	1	"	"	88·
	25·16	1	25·1	1	"	"	89·8
24·953	24·99	1	24·9	1	"	"	93·1
			23·9	1	"	"	39610·
			23·7	1	"	"	13·
23·290		0			"	"	19·1
			22·8	1	"	"	27·
			21·7	1	"	"	44·
21·175		0	21·2	2	"	"	52·4
			19·9	1	"	"	73·
			19·5	1	"	"	79·
			19·1	1	"	"	85·
			18·6	1	"	"	93·
			18·1	2	"	"	39701·
			17·8	2	0·73	"	06·
15·448	15·45	1	15·4	1	"	"	42·7
13·799	13·80	2			"	"	69·8
			13·6	1	"	"	72·
			13·2	1	"	"	78·
12·665	12·66	2	12·5	8	"	"	86·8
12·191		0			"	"	94·3

IRIDIUM—*continued.*

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda} -$	
Kayser	Exner and Haschek		Exner and Haschek				
2512.096	2512.02	1	2512.0	4	0.73	11.6	39797.0
09.798	09.80	1	09.7	1	"	11.7	39832.1
08.434	08.42	1	08.3	1	"	"	53.9
07.712	07.70	1	07.6	1	"	"	65.4
			07.0	1	"	"	76.
	06.70	1			"	"	81.4
			06.5	1	"	"	85.
			06.2	1	"	"	89.
05.814	05.82	1			"	"	95.4
05.308		0			"	"	39903.5
04.446	04.44	1			"	"	17.3
03.063	03.08	3			"	"	39.2
02.710	02.72	2	02.7	1	"	"	44.9
			01.0	1	"	"	72.
00.357	00.36	1	00.2	1	"	"	82.6
	2499.36		2499.5	1n	"	"	96.
					"	"	98.5
			98.4	1	"	"	40014.
			97.9	2	"	"	22.
			97.0	1n	"	"	36.
2496.360		2	96.3	1	"	"	46.6
95.951		0			"	"	53.2
			94.9	1	"	"	70.
			94.4	1	"	"	78.
			94.2	1	"	"	82.
			93.6	1	"	11.8	91.
93.163	93.16	2	93.2	1	"	"	97.9
92.406		0	92.3	1	"	"	40110.1
91.778		0			"	"	20.2
			89.6	1	"	"	55.
			89.4	1	"	"	58.
89.293		0	89.2	1	"	"	60.2
88.325		0n	88.4	4	"	"	75.8
			87.6	1	"	"	88.
			87.1"	1	"	"	96.
86.826		0			"	"	40200.1
86.463		0	86.3	1	"	"	06.0
	85.46	1	85.9	1	"	"	15.
					"	"	22.2
			85.3	1	"	"	25.
			84.7	1	"	"	35.
			84.5	1	"	"	37.
			84.3	1	"	"	41.
			83.0	1	"	"	62.
82.383		0			"	"	72.1
81.262	81.27	3	81.2	2	"	"	90.2
80.685		0			"	"	99.6
			79.8	1	"	"	40314.
79.255		0	79.4	1	"	"	23.1
			78.9	1	"	"	28.
			78.6	1	"	"	34.
78.190	78.20	1	78.2	1	"	"	40.1
			77.7	1	"	"	48.
			77.3	1	"	"	55.

IRIDIUM—continued.

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character			
Kayser	Exner and Haschek		Exner and Haschek		$\lambda +$	$1 - \lambda$	
2475.209	2475.19	3	2476.0	1	0.73	11.9	40376.
74.170		1	75.1	1	"	"	89.0
			74.3	1	"	"	40405.7
72.709		0	73.3	1	"	"	20.
			72.6	2	"	"	29.6
70.607		0	71.6	1	"	"	48.
70.143		0	70.7	1	"	"	64.0
69.848		0			0.72	"	71.6
69.594		0			"	"	76.4
			69.5	2	"	"	80.6
68.705		1	69.0	1	"	"	90.
68.263		0			"	"	95.2
	67.45	1 Pt ?	68.4	1	"	"	40502.4
67.382	67.37	2	67.5	1	"	"	15.8
			67.3	1	"	"	17.0
			66.7	1	"	"	28.
			66.1	1	"	"	38.
			65.5	1	"	"	48.
	65.16	1	65.0	1	"	"	53.4
	64.96	1			"	"	56.7
64.462					"	"	64.9
63.118	63.10	1	63.2	1	"	"	87.2
			62.8	1	"	"	92.
62.454	62.47	1	62.3	1	"	"	97.9
			61.8	1	"	"	40609.
			58.0	1	"	12.0	71.
57.312	57.31	1			"	"	82.9
57.123	57.12	1	56.5	2	"	"	86.6
56.882					"	"	90.0
55.949	55.95	1			"	"	40705.4
55.691	55.69	2	55.5	2n	"	"	09.7
54.945			54.9	2	"	"	22.1
	54.67	1n			"	"	26.7
			54.5	1	"	"	29.
54.212	54.20	1	54.1	1	"	"	34.4
			53.7	1	"	"	43.
52.893	52.89	2	52.7	1	"	"	56.2
			52.5	1	"	"	63.
			52.2	1	"	"	68.
			51.7	1n	"	"	76.
			50.8	1	"	"	91.
			50.4	1	"	"	98.
49.916		0			"	"	40805.8
			49.5	1	"	"	13.
49.112	49.10	1n	48.8	1	"	"	19.1
			48.6	1	"	"	28.
48.316	48.30	1			"	"	32.4
47.850	47.84	1			"	"	40.3
	47.53	1			"	"	45.5
			47.3	1	"	"	49.
46.926		0			"	"	55.6
	45.39	1	45.5	1	"	"	79.
					"	"	81.3
45.184		1	45.2	1	"	"	84.7

IRIDIUM—continued.

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo		
Wave-length		Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\lambda -$			
Kayser	Exner and Haschek		Exner and Haschek						
2436.513	2436.50	1n	2444.5	1	0.72	12.0	40896.		
			44.1	1	"	"	40903.		
			43.3	2	"	12.1	16.		
			42.6	1	"	"	28.		
			41.8	1	"	"	41.		
			41.3	1	"	"	50.		
			40.8	1	"	"	58.		
			40.3	2	"	"	67.		
			39.7	1	"	"	77.		
			39.3	1	"	"	83.		
			37.3	1	"	"	41017.		
			36.2	1	"	"	30.3		
			35.1	1n	"	"	35.		
			34.5	1	"	"	54.		
			34.1	1	"	"	64.		
			33.6	1	"	"	70.7		
			33.0	1	"	"	82.1		
					"	"	89.		
					"	"	95.5		
			32.439	32.41	1	32.5	1	"	99.1
			32.021	32.04	2			"	41105.8
			31.331	31.34	2	31.3	2	"	17.6
						30.7	1	"	28.
						30.5	1	"	32.
						30.0	1	"	40.
29.830		0	29.7	1n	"	"	43.0		
			29.0	1	"	"	57.		
27.878		2	27.8	2	"	12.2	76.0		
27.694	27.71	2			"	"	79.0		
27.189		0			"	"	87.7		
26.875		0			"	"	93.0		
26.622	26.61	1	26.5	1	"	"	97.4		
			26.2	1	"	"	41205.		
25.744	25.75	1	25.8	1	"	"	12.2		
25.069	25.07	1			"	"	23.7		
24.971	25.01	1	24.9	2	"	"	25.1		
24.741	24.74	1	24.7	2	"	"	29.3		
24.406	24.40	1	24.3	1	"	"	35.1		
22.286		0			"	"	71.2		
21.306		0			0.71	"	87.8		
			19.2	1	"	"	41324.		
18.657		0	18.5	1	"	"	33.0		
18.190	18.18	2	18.1	1	"	"	41.1		
			18.0	1	"	"	44.		
			17.3	1	"	"	56.		
16.672		0	16.8	1	"	"	67.0		
16.334		0			"	"	72.8		
15.950	15.95	1	16.0	2 Rh ?	"	"	79.4		
14.473		0			"	"	41405.7		
			13.3	1	"	"	24.8		
			13.2	1	"	"	27.		
			12.8	2	"	12.3	33.		
			12.5	1n	"	"	38.		
			11.9	1n	"	"	49.		

IRIDIUM—continued.

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character			
Kayser	Exner and Haschek		Exner and Haschek		$\lambda +$	$1 - \lambda$	
			2411.0	1	0.71	12.3	41464.
2410.818	2410.82	1			"	"	67.4
10.264	10.26	2			"	"	77.0
			10.1	2	"	"	80.
09.465	09.46	1	09.5	1	"	"	90.7
			09.1	1	"	"	97.
			08.5	2	"	"	41507.
			08.0	1	"	"	16.
	07.66	1			"	"	21.8
			07.1	1	"	"	31.
06.115		0			"	"	48.5
05.955		0	05.8"	In	"	"	51.2
			05.0	1	"	"	68.
			03.6	1	"	"	92.
03.113		0	03.1	1	"	"	41600.4
			02.8	1	"	"	06.
02.379		1			"	"	13.1
[01.866	01.86	2	01.7	1	"	"	22.0
			01.2	1	"	"	34.
			00.4	1	"	"	47.
			2399.2	1	"	"	68.
2398.824		0	98.7	6	"	"	74.8
			97.2	1	"	12.4	41703.
			96.1	1	"	"	22.
95.974		0			"	"	24.3
			95.4	1	"	"	34.
94.404	2394.41	In			"	"	51.6
			94.1	1	"	"	57.
			93.1	1	"	"	74.
			92.9	1	"	"	78.
91.282	91.29	3	91.2	2	"	"	41806.1
90.706	90.71	2	90.5	2	"	"	16.2
			89.7	1	"	"	34.
			89.4	1	"	"	39.
			89.0	1	"	"	46.
			88.6	1	"	"	53.
			87.8	1	"	"	67.
86.981	86.98	2			"	"	81.5
86.665	86.67	1	86.7	2	"	"	86.9
			86.4	2	"	"	92.
			84.8	6	"	"	41920.
83.840		0			"	"	36.7
			83.1	In	"	12.5	50.
82.270		1			"	"	64.3
	31.86	1	81.8	6	"	"	71.5
81.714	81.72	1			"	"	74.0
			80.9	1	"	"	88.
			80.3	1	"	"	99.
	79.45	1	79.5	1	"	"	14.0
			78.0	2	"	"	40.
			77.2	1	"	"	54.
			76.5	In	"	"	66.
			75.8	1	"	"	79.
			75.6	1	"	"	82.

Iridium—*continued.*

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\lambda -$	
Kayser	Exner and Haschek		Exner and Haschek				
2375.195	2375.21	1	2375.2	1	0.71	12.5	41989.2
			74.8	1	"	"	96.
			73.8	1	0.70	"	42114.
	73.23	1n	73.3	1n	"	"	24.2
72.856	72.86	3	72.8	2	"	"	30.8
70.462		2			"	"	73.4
			69.2	1	"	"	96.
68.486		0			"	12.6	42208.5
68.120		4	68.2	1	"	"	15.0
	68.11	2	68.1	8	"	"	15.2
67.469		0			"	"	26.7
	67.12	1n			"	"	32.8
			66.1	1	"	"	51.0
65.849		1			"	"	55.5
			64.0	1	"	"	89.
63.134	63.14	2	63.2	2	"	"	42304.0
			62.7	1	"	"	12.
			61.7	1	"	"	31.
60.790	60.80	1	60.6	1	"	"	45.9
59.668		0			"	"	66.2
			59.4	2	"	"	71.
			58.8	2	"	"	82.
	58.25	1			"	"	91.7
			58.0	2	"	"	96.
57.623		0			"	"	42403.0
			57.3	1	"	"	09.
56.674	56.68	1	56.7	1	"	"	20.0
56.388		0			"	"	25.2
56.122		0			"	"	30.0
			55.9	1	"	"	34.
			55.5	1	"	"	41.
55.082	55.11	1			"	"	48.5
			53.1	2	"	12.7	84.
			50.5	2	"	"	31.
52.705		1			"	"	91.6
			52.0	1	"	"	42504.
51.492		1	51.4	1n	"	"	13.5
			50.5	2	"	"	31.
50.136		0			"	"	38.0
49.790		0			"	"	44.3
			48.2	1	"	"	73.
			47.9	1	"	"	79.
47.329		1	47.4	1	"	"	88.9
			46.8	1	"	"	99.
			46.5	1	"	"	42604.
			46.2	1	"	"	09.
			45.3	1	"	"	26.
43.684	43.68	2	43.6	1	"	"	55.2
43.255	43.25	2	43.3	2	"	"	63.0
43.062		0			"	"	66.5
42.763		1			"	"	71.9
42.573		0	42.5	1	"	"	75.4
			41.6	2	"	"	93.
			40.3	1	"	12.8	42717.

IRIDIUM—continued.

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda} -$	
Kayser	Exner and Haschek						
			2340.0	2	0.70	12.8	42722.
2337.628		0	39.2	1	"	"	37.
			36.8	1	"	"	65.6
34.575	2334.57	1	34.5	1	"	"	81.
34.406		0	34.3	1	"	"	42821.6
33.917	33.95	1	33.8	1	"	"	24.6
33.372	33.37	1			"	"	33.3
			32.7	1	"	"	43.7
			32.3	1	"	"	56.
			31.8	1	"	"	63.
			30.5	1	"	"	73.
29.469		0	29.5	2	"	"	96.
			29.0	1	"	"	42915.4
28.790		0			"	"	24.
28.598		0			"	"	27.9
28.324		0			"	"	31.5
			28.1	1n	"	"	36.5
28.046		0			"	"	41.
			27.2	2	"	"	41.7
			26.0	1	"	12.9	57.
			25.8	1	"	"	79.
			25.5	1	"	"	83.
25.029		1			"	"	89.
24.754		0			"	"	97.3
24.006		0	24.1	1	"	"	43002.4
			23.7	2	"	"	16.2
			22.7	1	"	"	22.
			22.3	1	"	"	40.
			21.5	1	0.69	"	48.
21.622	21.61	1			"	"	60.5
21.481	21.49	1			"	"	63.0
			20.0	1	"	"	91.
			18.3	1	"	"	43122.
			17.4	2	"	"	39.
			16.8	1	"	"	50.
	15.46				"	"	75.1
			14.9	4	"	"	86.
			14.1	1	"	13.0	43200.
			12.5	1	"	"	30.
			12.0	1	"	"	40.
			11.6	1	"	"	47.
			10.9	1	"	"	60.
			10.4	1	"	"	70.
			10.1	1	"	"	75.
			09.6	1	"	"	84.
			09.4	1	"	"	88.
	09.00	1			"	"	95.8
			08.8	1	"	"	43300.
			06.7	1	"	"	39.
	05.54	1	05.5	1n	"	"	60.8
			04.6	1n	"	"	78.
	04.30	2			"	"	84.1
			04.0	1	"	"	90.
			01.5	1	"	"	43437.

IRIDIUM—continued.

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character			
Kayser	Exner and Haschek		Exner and Haschek		$\lambda +$	$\frac{1}{\lambda} -$	
			2300·8	1	0·69	13·1	43450·
			00·5	1	"	"	56·
	2300·11	1			"	"	63·1
			2299·8	1	"	"	69·
			97·3	2	"	"	43516·
			96·3	1	"	"	35·
	2295·19	1	95·2	1	"	"	56·3
			94·5	1	"	"	69·
			93·7	1	"	"	85·
			92·5	1	"	"	43607·
			91·8	1	"	"	21·
			91·0	4	"	"	36·
			89·5	2	"	"	65·
			88·3	2	"	13·2	87·
			87·0	2	"	"	43712·
			85·7	1	"	"	37·
			84·6	1	"	"	58·
			81·7	2	"	"	43814·
			81·2	2	"	"	23·
			80·6	2	"	"	35·
			78·5	1	"	"	75·
			77·7	1	0·68	"	91·
			77·3	1	"	"	98·
			77·1	1	"	"	43902·
			76·3	1	"	"	18·
			75·6	1	"	13·3	31·
			72·5	1n	"	"	91·
			71·4	2	"	"	44012·
			68·9	2	"	"	61·
			68·5	2	"	"	69·
			68·1	1	"	"	76·
			67·8	1	"	"	82·
			65·3	2	"	"	44131·
	64·73	1	64·7	1n	"	"	42·1
			63·0	1n	"	13·4	76·
			62·4	1n	"	"	87·
			62·2	1	"	"	91·
			59·3	2	"	"	44248·
	59·00	1			"	"	54·0
			58·8	1	"	"	58·
			58·4	2	"	"	66·
			57·5	2	"	"	83·
			57·1	2	"	"	91·
			56·5	1	"	"	44303·
			56·0	1	"	"	13·
			55·5	1	"	"	23·
	55·22	1	55·3	1	"	"	28·2
	53·60	1n			"	"	60·0
			53·3	1	"	"	66·
			52·0	1	"	"	92·
			51·5	1	"	"	44401·
			50·7	1	"	13·5	17·
			49·4	1	"	"	43·
			48·8	1	"	"	55·

IRIDIUM—continued.

Arc Spectrum			Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length		Intensity and Character	Wave-length	Intensity and Character			
Kayser	Exner and Haschek		Exner and Haschek		$\lambda +$	$\frac{1}{\lambda} -$	
	2242·80	2	2247·7	1	0·68	13·5	44476·
			46·7	2	"	"	96·
			45·5	2	"	"	44520·
			43·8	1	"	"	54·
			42·6	4	"	"	73·6
			40·5	1	"	"	44610·
			38·7	1	"	13·6	55·
			38·3	2	"	"	63·
			38·1	1	"	"	67·
			37·1	2	"	"	87·
			36·3	1	"	"	44703·
			34·3	1	"	"	43·
			34·0	1	"	"	49·
			33·2	1	"	"	65·
			32·0	1	"	"	89·
			24·2	1	0·67	13·7	44946·
			20·6	1n	"	"	45019·
			19·3	1	"	"	46·
			18·9	1	"	"	54·
			12·4	1	"	13·8	45186·
			11·2	1	"	"	45211·
			10·2	1n	"	"	31·
			08·7	1n	"	"	62·
			05·0	2	"	"	45338·
			2197·5	1	"	13·9	45492·
			96·1	1	"	"	45521·
			92·2	1	"	14·0	45602·
			90·3	2	"	"	42·
			87·0	1	"	"	45711·
			78·5	1	0·66	14·1	45889·
			69·3	1	"	14·2	46184·
			52·6	1	"	14·3	46441·
			51·7	1	"	"	61·

OSMIUM.

Kayser, 'Abhandl. königl. Akad. Wissensch. Berlin,' 1897.

Exner and Haschek, 'Sitz. kais. Akad. Wissensch. Wien,' cv. p. 727 (1896), cvi. p. 53 (1897).

Rowland and Tatnall, 'Astroph. J.' ii. 186 (1895).

Exner and Haschek, 'Wellenlängen-Tabellen der Bogenspektren der Elemente,' Leipzig und Wien, 1904.

Adeney, Photographs of Ultra-violet Spark Spectra, 'Trans. Roy. Dublin Soc.' (2), vii p. 331.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
5728.735			2			1.56	4.7	17451.2
5523.786			2			1.51	4.9	18098.6
02.789			3			1.50	5.0	67.6
5149.895			2			1.41	5.3	19412.7
03.670			2			1.40	5.4	19588.3
5031.988			1			1.38	„	19867.5
4937.522			0			1.35	5.6	20248.1
12.771			1			1.34	„	20349.5
4899.386			0			„	„	20405.1
65.759			2			1.33	„	20546.2
16.105			2			1.32	5.7	20758.0
4794.177			5			1.31	„	20852.9
63.263			0			1.30	5.8	20983.8
55.332			1			„	„	21023.2
44.050			2			„	„	73.2
38.508			2			„	„	97.9
38.215			1			„	„	99.2
4692.220		4692.20	2	4696.8	ln	1.29	5.9	21285.
				92.2	ln	1.28	„	21306.0
				70.6	ln	„	„	21405.
				67.5	ln	„	„	419.
				64.1	l	„	„	434.
63.977		63.99	3			„	„	435.0
42.010			0			1.27	„	21536.5
34.930		34.94	ln			„	6.0	569.3
32.000		32.01	4	32.0	l	„	„	582.9
16.948	4616.944	16.94	3	16.9	l	1.26	„	21653.3
4597.321		4597.35	2	4597.3	ln	„	„	21745.7
95.206		95.22	ln	95.2	ln	„	„	755.8
				88.1	l	„	„	790.
				79.3	l	1.25	„	21831.
				72.9	l	„	„	862.
				66.6	l	„	„	892.
				57.7	ln	„	6.1	21935.
				56.9	l	„	„	939.
51.461	4551.463	51.50	4	51.5	2	„	„	964.8
50.584	50.571	50.59	8	50.58	8	„	„	969.1
48.836	48.827	48.85	3	48.8	l	„	„	977.5
				46.2	ln	„	„	990.
				45.2	l	„	„	995.
40.093	40.087	40.10	2	40.1	l	1.24	„	22019.9
				37.8	l	„	„	031.
29.848	29.842	29.88	1	29.9	l	„	„	069.7
25.035	25.035	25.03	1	25.1	l	„	„	093.2

OSMIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$1 - \lambda$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
				4523.5	1b	1.24	6.1	22101.
				20.06	10	"	"	14.6
				20.5	1	"	"	15.
				20.2	1	"	"	17.
4519.050			0	19.1	1	"	"	22.4
14.445			0			"	"	45.0
				11.0	1b	"	"	62.
07.590			0			"	"	78.7
03.474			0			1.23	"	99.0
				01.1	1	"	"	22211.
				4490.3	1n	"	6.2	64.
4488.771	4488.766	4488.75	1	88.7	1	"	"	71.7
84.935	84.930	84.94	3	84.9	2	"	"	90.7
				84.3	1	"	"	94.
79.974	79.976	79.98	2	80.0	1	"	"	22315.4
66.134	66.121		1	66.2	1n	1.22	"	84.6
62.473	62.470		1	62.5	1	"	"	22402.9
59.790	59.781	59.80	1			"	"	16.4
59.646	59.658	59.68	1	59.7	2	"	"	17.0
				58.5	1	"	"	23.
47.535	47.520	47.52	4	47.5	2	"	"	78.3
45.854	45.850		1	45.8	1	"	"	86.7
45.582			1			"	"	88.0
39.808	39.810	39.80	2	39.8	1	"	"	22517.3
37.258	37.257	37.26	1	37.3	1	"	"	30.2
36.490	36.488	36.48	5	36.5	2	"	"	34.2
				36.0	1	"	"	37.
32.584	32.582	32.59	3	32.6	2	"	"	54.0
28.059			1			"	6.3	77.0
				24.7	1b	1.21	"	94.
				23.7	1	"	"	99.
20.639	20.633	20.64	12	20.66	10	"	"	22614.9
11.298		11.30	1			"	"	62.8
10.899			1	05.0	1	"	"	64.8
04.375	04.378	04.40	2	04.3	1	"	"	98.3
02.901	02.904	02.92	3			"	"	22706.0
00.751	00.747	00.75	2	00.7	1n	"	"	17.1
4397.424	4397.427	4397.45	4	4397.5	2	"	"	34.2
95.040	95.042	95.05	8	95.08	8	"	"	46.6
91.251	91.242	91.30	2	91.3	2	1.20	"	66.2
90.406			0			"	"	70.6
				90.0	1n	"	"	73.
86.485			1	86.5	1	"	6.4	90.9
85.068			0	85.1	1n	"	"	98.3
77.070	77.068	77.05	1n	77.0	1	"	"	22840.0
70.826	70.824	70.84	3	70.8	2	"	"	72.6
65.835	65.837	65.85	5	65.83	4	"	"	98.7
61.126			0	61.2	1n	"	"	22923.5
58.318	58.304	58.31	1	58.3''	2n	"	"	22938.3
58.157	58.153	58.16	1			"	"	39.1
				56.6	1	1.19	"	47.
54.631	54.626	54.64	1	54.6	1	"	"	57.6
				53.7	1	"	"	63.
51.695	51.691	51.72	3			"	"	73.2

OSMIUM—*continued.*

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$1 - \lambda$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
		4345.75	1			1.19	6.4	23000.
		44.83	1			"	"	09.
4342.681	4342.678	42.70	2			"	"	20.8
38.913	38.919	38.91	3	4338.9	2	"	"	40.8
		33.11	1			"	"	71.7
28.838	28.840	28.85	5	28.83	6	"	"	94.5
26.413	26.416	26.41	4	26.4	2	"	"	23107.4
				22.9	1	"	"	26.
19.513	19.502	19.50	2			"	"	44.4
		18.15	1n			1.18	"	51.7
17.754	17.743	17.73	1			"	"	53.8
				12.4	1	"	"	83.
11.561	11.560	11.57	7	11.55	8	"	"	87.0
09.041	09.041	09.05	3	09.1	1	"	"	23200.6
				07.9	1	"	6.5	07.
	05.440	05.45	1	05.5	1	"	"	19.9
				00.0''	1	"	"	49.
4299.870	4299.856	4299.87	1			"	"	50.1
				4298.6	1n	"	"	57.
97.556	97.538	97.56	1	97.6	1n	"	"	62.6
96.381	96.383	96.40	3	96.4	1	"	"	68.9
94.105	94.113	94.14	10	94.05	10	"	"	81.2
		93.10	1	93.1	1n	"	"	86.7
				92.0	1n	"	"	93.
		88.13	1			"	"	23313.7
86.056	86.056	86.05	3	86.1	2	"	"	25.0
		84.44	1	84.6	1n	"	"	33.8
81.535	81.529	81.54	1	81.5	1	"	"	49.6
77.315	77.302	77.30	2	77.4	1	1.17	"	72.7
75.074	75.064	75.10	2n	75.2	1	"	"	84.9
73.984						"	"	90.9
				72.0	1	"	"	23402.
70.952	70.945	70.95	2	71.0	1	"	"	07.5
				69.9	1	"	"	13.
69.767	69.767	69.78	3	69.7	1	"	"	13.9
69.526	69.521	69.53	2			"	"	15.3
64.893	64.903	64.91	3	65.0	2	"	"	40.7
				64.6	1	"	"	42.
61.011	60.993	61.01	15	60.98	10	"	"	62.1
52.718	52.690	52.73	2	52.7	1	"	6.6	23507.8
51.321	51.331	51.40	2	51.4	1n	"	"	15.3
		47.69	1n			"	"	35.6
		43.32	1n			1.16	"	59.9
41.682	41.679	41.70	2			"	"	68.9
		37.31	1	33.6	2	"	"	93.3
33.630	33.613	33.65	4			"	"	23613.8
		32.20	1			"	"	21.8
29.531		29.51	1			"	"	36.7
	26.675	26.72	2			"	"	52.5
		19.84	1	19.9	1n	"	"	91.0
19.005	18.991	19.02	1	19.0	1n	"	"	95.7
		15.33	3	15.4	1	"	"	23716.3
		14.06	4	14.0	2	"	"	23.5
12.028	12.007	12.06	15	12.02	10	"	"	34.9

OSMIUM—continued

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek						
		4105.60	2	4106.3	1	1.13	6.8	24346.
		03.80	3	00.5	2	"	"	50.2
4100.436	4100.446	00.46	3			"	"	60.9
4098.233	4098.264	4098.29	3	4098.3	1	"	6.9	80.8
97.087	97.090		2			"	"	93.7
	97.004		2			"	"	24400.8
		96.26	1			"	"	00.8
91.980	91.977	91.99	6	91.98	4	1.12	"	05.6
		91.18	1n			"	"	31.1
		90.99	1n	91.0	1	"	"	35.9
88.598	88.593	88.58	3	88.6	1	"	"	37.3
				84.8	1n	"	"	51.4
		76.85	1			"	"	84.
		75.02	1			"	"	24521.8
74.829	74.834	74.83	4	74.9	2	"	"	32.9
73.768	73.763	73.78	4	73.8	1	"	"	34.0
	71.716	71.71	3	71.7	1	"	"	40.4
71.169	71.162	71.15	2n	71.2	2	"	"	52.8
71.020	71.008	71.01	4			"	"	56.1
66.862	66.848	66.85	10	66.82	10	"	"	57.0
66.460	66.464	66.47	2			"	"	82.1
			1	62.8	1n	"	"	84.5
		61.78				"	"	24607.
		60.85	1	60.9	1	"	"	12.8
		56.49	1n			"	"	18.5
55.859			0			"	"	44.9
55.646	55.641	55.65	2	55.6	1	"	"	48.8
		53.96	1n	53.9	1	1.11	"	50.1
53.417	53.407	53.40	1	53.4	1	"	"	60.3
51.584	51.580	51.59	2	51.6	1	"	"	63.7
		50.72	1	50.7	1	"	7.0	84.8
				50.3	1	"	"	80.0
48.216	48.197	48.20	3	48.3	1	"	"	83.
		42.95	1			"	"	95.3
42.081	42.073	42.09	4	42.1	2	"	"	24727.4
				39.6	1	"	"	33.2
38.813			0			"	"	48.
38.809		38.80	1	38.8	1	"	"	52.7
	38.782		2			"	"	52.8
	38.017	38.00	2	37.9	1	"	"	52.9
36.640	36.634	36.61	1	36.6	1	"	"	57.7
35.249	35.250	35.26	1	35.3	1	"	"	66.1
	33.095	33.12	1 Ga ?	33.0	1	"	"	74.6
				30.8	1n	"	"	87.8
				29.7	1n	"	"	24802.
				24.0	1n	"	"	09.
				22.9	1n	"	"	44.
		20.56	1	20.6	1n	"	"	51.
18.425	18.430	18.38	4	18.4	2	"	"	65.2
15.203	15.211	15.18	2	15.2	1	1.10	"	78.5

OSMIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
	4005·327	4005·29	5			1·10	7·0	24959·9
4004·184	04·193	04·18	3	4004·2	2	"	"	66·9
03·652	03·652	03·64	4	03·6	2	"	7·1	70·1
		01·50	1	01·4	1b	"	"	83·5
3999·110	3999·103	3999·10	2	3999·2	1	"	"	98·5
				98·2	1n	"	"	25004·
96·979	96·972	96·99	2			"	"	11·8
95·103	95·096	95·10	2			"	"	12·3
	91·640	91·66	2			"	"	32·9
88·785	88·783	88·76	1			"	"	63·2
88·340	88·343	88·32	2	88·3	1	"	"	66·0
				85·6	1	"	"	83·2
79·524	79·521	79·53	1	79·5	1n	"	"	25121·5
77·389	77·391	77·39	10	77·33	4	"	"	35·0
75·596	75·598	75·59	3	75·5	1	1·09	"	46·4
		74·00	1			"	"	56·5
				71·5	1	"	"	72·
				71·6	1	"	"	72·
69·832	69·835	69·82	4	69·8	1	"	"	83·1
				66·6	1	"	"	25203·
65·106	65·112	65·08	3	65·1	1	"	"	12·9
63·774	63·777	63·80	10	63·80	6	"	"	21·3
		63·48	1			"	"	23·3
61·159	61·163			61·2	2	"	"	38·0
60·656	60·653	60·65	3	60·6	1	"	"	41·3
				58·0	1	"	"	58·
		57·80	1n			"	"	59·5
		55·53	2			"	7·2	73·9
		54·72	1n			"	"	79·0
				53·5	1	"	"	87·
52·904	52·911	52·91	2	53·0	1	"	"	90·6
49·925	49·921	49·93	3	49·9	1	"	"	25309·7
				49·3	1n	"	"	14·
		40·20	1			"	"	72·2
39·704	39·708	39·71	3	39·7	1	"	"	75·4
38·739	38·739	38·74	1	38·7	2	"	"	81·6
				36·6	1	1·08	"	95·
		35·67	1	35·7	1b	"	"	25401·4
31·660	31·660	31·70	2	31·7	1	"	"	27·3
30·148	30·138	30·14	4	30·1	1	"	"	37·2
28·691	28·681	28·68	3	28·6	1n	"	"	46·6
28·557	28·554	28·57	2			"	"	47·4
		28·31	1			"	"	49·0
		27·40	1			"	"	54·9
26·923	26·916	26·93	2	26·9	1	"	"	58·0
25·253	25·244	25·25	2	25·2	1	"	"	68·9
		22·15	2	22·2	1	"	"	89·0
		21·00	2	21·0	1	"	"	96·5
	19·107	19·09	1			"	"	25508·9
	18·888	18·85	2			"	"	10·4
15·543			0			"	"	32·0
		11·95	2			"	"	55·5
				10·7	1	"	"	64·
		07·78	1			"	7·3	82·7

OSMIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
		3906.28 05.65	1 1 Si ?	3906.2	1b	1.08	7.3	25592.5 96.6
				05.2	1b	"	"	25600.
				03.2	1b	"	"	13.
				02.0	1b	"	"	21.
3901.851	3901.843	01.87	5	01.8	2	"	"	21.5
		01.16"	2	01.1	1	"	"	26.1
00.541	00.527	00.54	4	00.5	1	"	"	30.2
		3899.18	1			"	"	39.1
		97.30	1			"	"	51.5
3895.331	3895.305	95.34	2	3895.3	1	1.07	"	64.5
	95.023	95.05	1	95.0	2	"	"	66.4
		94.83	1			"	"	67.8
		93.40	1n	92.1	1b	"	"	77.2
		92.99	1			"	"	79.9
		91.75	1			"	"	88.1
		88.97	1			"	"	25706.5
		86.91	2	86.9	1	"	"	20.1
		85.90	2	85.9	1	"	"	26.8
		84.75	1			"	"	34.4
				83.5	1n	"	"	43.
		82.02	4	82.0	2	"	"	52.5
		80.93	2	80.9	1	"	"	59.7
		78.65	3			"	"	74.9
		78.05	3			"	"	78.9
		77.45	2	77.5	1	"	"	82.8
	76.971	76.91	8	76.95	4	"	"	86.2
		75.82	1n			"	"	93.7
		75.26	1			"	"	97.4
				74.2	1n	"	"	25804.
		73.86	2	73.8	1n	"	"	06.7
		73.17	1			"	"	11.3
				71.1	1	"	"	25.
		69.15	1			"	"	38.2
		68.83	2	68.8	1	"	"	40.3
		66.65	2			"	"	54.9
		66.19	1			"	"	58.0
		65.59	6			"	"	62.0
		65.19	2			"	"	64.7
				62.7	1b	"	"	81.
		60.95	1			"	"	93.1
				59.8	1	"	"	25901.
		57.24	10	57.2	2	"	"	18.0
		54.86	2	54.8	1	1.06	"	34.0
		53.75	2n			"	"	41.4
		53.60	3	53.6	1	"	"	42.5
		50.11	10			"	"	66.0
		48.94	1	49.0	1	"	"	73.9
		47.71	1			"	"	82.2
				47.4	1	"	"	84.
		47.01	1			"	"	86.9
		46.55	2	46.6	1n	"	"	90.0
		45.81	1			"	"	95.0
		44.95	1			"	"	26000.8

OSMIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek	Character			
		3843.77	3	3843.7	1	1.06	7.3	26008.8
		42.40	1			"	"	18.1
		41.80	1			"	"	22.2
		41.41	5	41.4	2	"	"	24.8
		40.44	10	40.4	2	"	"	31.4
		36.18	10	36.2	2	"	"	60.3
				32.5	1	"	"	85.
		32.33	2	32.3	1 Pd ?	"	"	86.5
		31.55	1			"	"	91.8
		30.26	1			"	"	26100.6
		29.20	1			"	"	07.8
		27.30	3	27.2	1	"	"	20.8
		26.78	2	26.7	1	"	"	24.3
				26.5	1	"	"	26.2
		23.47	1			"	"	47.0
		22.06	2	22.1	1n	"	"	56.6
		21.80	2	21.8	1n	"	"	58.4
		18.80	2 Pt ?			"	"	78.9
				18.7	1	"	"	80.
		18.21	2			"	7.4	82.9
				18.0	1b	"	"	84.
		17.78	2			"	"	85.8
		14.42	2	14.4	1	1.05	"	26208.9
		14.20	1			"	"	10.4
		12.45	2	12.4	1	"	"	22.5
				11.1	1	"	"	32.
		10.59	1	10.6	1	"	"	35.3
		09.80	1	09.7	1	"	"	40.7
				07.8	1	"	"	54.
		04.27	1			"	"	78.9
		02.77	2	02.7	1	"	"	89.2
		01.75	2	01.7	1	"	"	96.3
		01.40	1n			"	"	98.7
		01.23	1			"	"	99.9
		00.90	1			"	"	26302.2
		00.58	3	00.6	1	"	"	04.4
		00.06	1			"	"	08.0
		3797.86	1			"	"	23.2
		95.83	3	3795.8	1	"	"	37.3
				95.2	1	"	"	42.
		94.84	3	94.9	1	"	"	44.2
	3794.054	94.08	10	94.1	4	"	"	49.5
				94.02	4	"	"	49.9
		92.18	1			"	"	62.7
		91.23	1			"	"	69.3
	90.244	90.90	4	90.9	2	"	"	71.6
		90.29	6	90.26	4	"	"	76.0
		89.25	3	89.2	1	"	"	83.0
		89.04	1			"	"	84.5
		86.14	1 Ti ?	86.1	1	"	"	26404.7
		85.88	1	85.8	1n	"	"	06.5
		85.82	1			"	"	07.0
				84.6	1	"	"	15.
				84.3	1	"	"	18.

OSMIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo	
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$		
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek					
	3771.040	3783.82	2	3783.8	1	1.05	7.4	26420.9	
		82.90	1			"	"	27.4	
		82.34	20	82.34	8	"	"	31.3	
		81.99	1n			"	"	33.7	
		80.74	1	80.7	1	"	"	42.5	
		80.37	2	80.3	1	"	"	45.0	
				79.6	1	"	"	50.	
		77.13	5	77.1	1	"	"	67.7	
		76.40	3	76.4	1	1.04	"	72.8	
		76.16	1	76.2	1	"	"	74.5	
		76.10	1			"	"	75.0	
		74.77	3	74.7	1	"	"	84.3	
		74.55	3	74.5	1	"	"	85.8	
		74.30	1			"	"	87.6	
		73.95	2			"	"	90.0	
		72.09	2	72.0	1	"	7.5	26503.0	
		71.78	2	71.7	1	"	"	05.2	
		71.00	2	71.1	1b	"	"	10.7	
		70.48	1			"	"	14.3	
		69.44	1			"	"	21.6	
		68.27	4	68.3	1	"	"	29.9	
		66.43	4	66.4	1	"	"	42.8	
		64.83	1	64.8	1n	"	"	54.1	
				64.1	1	"	"	59.	
				60.9	1	"	"	82.	
		60.40	2	60.4	1	"	"	85.4	
		58.25	1			"	"	26600.6	
		57.21	3	57.2	1	"	"	08.0	
		56.91	1			"	"	10.1	
				56.8	1	"	"	11.	
				56.70	1			"	11.6
				54.65	1n	54.6	2	"	26.1
				53.99	1			"	30.8
				52.69''	20	52.68	10	"	40.1
				52.06	2	52.1	1	"	44.5
						51.9	1	"	46.
				51.45	2	51.4	1	"	48.8
				50.95	2			"	52.4
				50.72	2			"	54.0
				49.99	1			"	59.2
		49.18	2			"	65.0		
				48.4	1	"	71.		
		47.18	1			"	79.2		
3746.612		46.60	4	46.5	2	"	83.3		
		44.52	1			"	98.2		
		44.00	1			"	26701.9		
		43.80	1			"	03.3		
		41.66	2	41.7	1n	"	18.6		
		41.22	2	41.2	1	"	21.7		
		40.39	1			"	27.7		
		40.20	1			"	29.0		
				37.1	1	1.03	51.		
		35.66	2	35.6''	1	"	61.5		
		35.36	1			"	63.7		

OSMIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
3703.391		3734.70	1			1.03	7.5	26768.4
		33.50	1			"	"	77.0
		32.99	1	3732.9	1n	"	"	80.7
		31.95	2	31.9	1	"	"	88.1
		30.88	3	30.9	1	"	"	95.8
		29.37	3			"	"	26806.7
		28.85	1			"	"	10.4
		28.52	2	28.5	1	"	"	12.8
		26.13	1			"	7.6	29.9
		25.45	2	25.4	1	"	"	34.8
		22.11	2	22.1	1	"	"	58.9
		20.27	10	20.3	2	"	"	72.2
				20.1	2	"	"	73.
		19.64	10	19.6	2	"	"	76.7
		18.87	1			"	"	82.3
		18.49	3	18.5	1	"	"	85.0
		18.06	2	18.1	1	"	"	88.1
		17.54	1			"	"	91.9
		17.00	1			"	"	95.8
		16.48	2			"	"	99.6
		16.38	3	16.4	1n	"	"	26900.2
				15.2	1b	"	"	09.
		14.13	2n			"	"	16.6
		13.88	4	13.9	2	"	"	18.4
		12.99	2			"	"	24.9
		12.60	2			"	"	27.7
				11.9	1	"	"	32.8
		09.30	5			"	"	51.7
		06.72	4	06.6	2	"	"	70.4
				04.2	1	"	"	89.
	03.40	4	03.4	2	"	"	94.6	
	02.95	2			"	"	97.9	
	01.75	2			"	"	27006.6	
			01.6	1	"	"	08.	
	01.45	1	01.4	1	"	"	08.8	
00.688					"	"	14.4	
	00.45	2	00.4	1	"	"	16.1	
	3698.98	2	3698.9	1	"	"	26.9	
			95.9	1n	1.02	"	49.	
	95.80	1			"	"	50.1	
	95.35	1	95.4	1n	"	"	53.4	
	94.53	1			"	"	59.4	
			94.4	1n	"	"	60.	
			93.8	1n	"	"	65.	
	93.15	1			"	"	69.5	
	92.80	1	92.75	4	"	"	72.1	
3691.750		92.41	1		"	"	75.0	
			0		"	"	79.8	
	90.88	2			"	"	86.2	
				89.5	1	"	96.	
89.191		89.21	5	89.1	2	"	98.5	
	88.05	1			"	"	27107.0	
	87.40	1			"	"	11.8	
	87.19	1	87.1	1	"	"	13.3	

OSMIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
		3685.55	1	3686.2	1	1.02	7.6	27121.
		84.70	2			"	"	25.4
				84.5	1	"	"	31.6
		84.00	1	84.2	1	"	"	33.
3681.705		81.74	3	81.7	1	"	7.7	36.8
		78.40	1			"	"	78.0
		78.15	2	78.2	1	"	"	79.9
75.599		75.60	4	75.5	1	"	"	98.7
		74.67	1			"	"	27205.6
				73.3	1b	"	"	16.
		73.01	1			"	"	17.9
				72.1	1	"	"	25.
71.040	3671.040	71.60	1	71.1	2	"	"	28.4
		71.05	6			"	"	32.5
		69.85	1			"	"	41.4
		69.63	1			"	"	43.0
		69.25	1			"	"	45.8
		68.34	1	68.4	2	"	"	52.6
		66.48	4	66.4	2	"	"	66.4
				65.1	2	"	"	77.
		61.40	2	61.4	1	"	"	27304.3
		60.92	1			1.01	"	07.8
				59.8	1n	"	"	16.
57.048	57.053	57.57	1			"	"	32.9
		57.05	6	57.1	2	"	"	36.7
		56.55	1			"	"	40.5
		54.95	1			"	"	52.5
54.631	54.639	54.64	5	54.6	2	"	"	54.8
53.873		53.86	3	53.9	1	"	"	60.6
		53.35	2			"	"	64.4
		50.52	2			"	"	85.7
				50.4	1	"	"	87.
48.962		48.94	3	48.9	1	"	"	97.4
		48.45	2	48.4	1	"	"	27401.2
		45.28	1			"	"	25.0
		42.65	2			"	"	44.8
				42.6	1	"	"	
				42.3	1	"	"	47.
		41.40	2	41.4	1	"	"	54.3
				40.8	2	"	"	59.
40.487	40.484	40.50	8	40.48	4	"	"	61.1
				39.73	8	"	"	66.9
		39.44	1			"	"	74.4
		38.72	1			"	7.8	78.3
		38.20	1	38.1	1b	"	"	79.
		35.40	1n			"	"	99.5
				32.2	1n	"	"	27524.
		31.95	1			"	"	25.6
		30.95	1			"	"	33.2
		30.56	1			"	"	36.2
30.099		30.12	3	30.1	1	"	"	39.6
		27.39	1			"	"	60.2
		26.05	1			"	"	70.4

OSMIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$1 - \lambda$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
3616·726		3625·53	1	3621·7	1	1·01	7·8	27574·4
		21·26	1	21·2	1	"	"	27604·
		20·40	2	20·4	1	"	"	06·9
		19·59	3	19·5	1	"	"	13·5
				17·1	1	1·00	"	19·6
		16·73	8	16·7	2	"	"	39·
		15·77	1			"	"	41·5
		13·50	3	13·4	1	"	"	48·8
				12·9	1	"	"	66·2
				12·4	1	"	"	71·
				10·5	1n	"	"	75·
		09·83	1			"	"	89·
		09·30	3	09·3	1	"	"	94·3
				09·0	1	"	"	98·4
04·624		07·54	1			"	"	27701·
		05·97	1			"	"	11·9
		04·65	2	04·62	4	"	"	24·0
		04·50	1n			"	"	34·2
		04·02	1			"	"	35·3
				03·9	1	"	"	39·0
				03·2	1	"	"	40·
		02·99	1			"	"	45·
		02·64	2	02·5	1	"	"	46·9
		02·00	4	02·0	1	"	"	49·6
01·984 3598·266	3598·264	3598·25	10	3598·2	2	"	"	54·5
		97·66	2	97·6	1	"	"	83·4
		95·96	1			"	"	88·1
				93·8	1n	"	"	27801·2
				93·0	1n	"	7·9	18·
		92·49	3	92·4	1	"	"	24·
		91·77	1			"	"	27·9
				91·6	1	"	"	33·5
				91·3	1	"	"	35·
				90·2	1	"	"	37·
		90·28	3			"	"	45·1
		89·48	1			"	"	51·3
		88·11	1			"	"	61·9
		87·48	4	87·4	2	"	"	66·8
		86·65	3			"	"	73·3
				86·5	1	"	"	74·
		84·56	2	84·5	2	"	"	89·5
		83·55	2	83·4	1	"	"	97·4
		83·21	2	83·2	1	"	"	27900·0
		82·95	1	82·9	1	"	"	02·1
				82·3	1	"	"	07·
				82·2	1	"	"	08·
		80·68	1			"	"	25·0
		80·01	1	77·8	1	"	"	42·
		77·65	1			0·99	"	43·4
				74·9	1	"	"	65·
		74·25	3	74·2	1	"	"	70·0
		72·93	1			"	"	80·3
				72·6	1n	"	"	83·
		71·70	1			"	"	90·0

OSMIUM—*continued.*

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
3528.743		3569.94	4	3569.9	2	0.99	7.9	28003.8
		69.17	1	69.2	1n	"	"	09.8
		68.75	1			"	"	13.1
		67.23	1			"	"	25.1
				65.3	1	"	"	40.
		64.25	2	64.2	1n	"	"	48.5
				63.4	1n	"	"	55.
				63.1	1n	"	"	58.
		62.51	4	62.4	1	"	"	62.2
		61.55	1			"	"	69.8
		61.03	10	61.08	8	"	"	73.9
		60.61	1			"	"	77.2
				60.02	6	"	"	81.8
		59.97	10	59.8	6	"	"	82.2
		58.96	1			"	"	90.2
		58.10	1			"	"	97.0
				57.4	1n	"	"	28103.
		56.11	2			"	"	12.7
		55.85	2			"	"	14.8
		54.70	1			"	"	23.9
		54.20	1	54.1	1	"	"	27.8
		51.09	1	51.0	1	"	"	52.4
		50.86	1	50.8	1	"	8.0	54.2
		49.81	1			"	"	62.5
		49.65	2			"	"	63.8
		49.17	1			"	"	67.6
				49.0	1n	"	"	69.
		48.87	1			"	"	70.0
		48.03	1			"	"	76.6
				47.7	1	"	"	79.
		46.25	1	46.1	1n	"	"	90.8
				45.6	1n	"	"	96.
		44.70	2	44.6	1	"	"	28203.1
		43.85	2	43.7	1	"	"	09.9
		43.43	1	43.3	1	"	"	13.2
		42.85	5	42.6	2	"	"	17.9
		42.03	2	42.0	1	"	"	24.4
		41.68	1			"	"	27.2
		40.35	1			"	"	37.8
		40.01	1			"	"	40.5
				38.4	1	"	"	53.
		38.13	1			"	"	55.5
			37.8	1	0.98	"	58.	
	37.64	1			"	"	59.4	
	37.20	1	37.2	1	"	"	62.9	
	33.55	4	33.4	1	"	"	92.1	
	32.98	8			"	"	96.7	
			32.8	2	"	"	98.	
	31.26	2	31.2	1	"	"	28310.5	
	30.20	3			"	"	19.0	
			30.1	2	"	"	20.	
	28.75	10	28.80	6	"	"	30.7	
			28.6	6	"	"	32.	
	26.16	3	26.1	2	"	"	51.5	

OSMIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character			
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek		$\lambda +$	$\frac{1}{\lambda}$	
3513-791 13-145		3525-45	1	3523-87	4	0-98	8-0	28357-2
		23-78	5		23-6	4	"	"
		23-34	1	22-1	1	"	"	72-
		22-12	2			21-2	1n	"
		20-15	3	20-1	1	"	"	84-0
		19-32	2	18-7	2	"	"	91-
		19-08	1			"	"	99-9
		18-87	3	17-9	1	"	"	28406-6
		17-41	2	17-3	1	"	"	08-5
		17-30	2			16-6	1	"
		16-75	3	15-4	1b	"	"	18-
		13-91	2	13-9	1Fe	"	"	22-0
		13-15	5	13-1	2	"	"	22-9
		11-38	2	11-5	1	"	"	27-3
		09-00	1	11-2	1	"	"	38-
		07-21	1	10-5	1	"	"	50-8
		05-14	1 Ti ?	06-9	1n	"	8-1	56-5
		04-81	6			05-0	1n	"
		03-61	1	04-85	4	"	"	72-
		01-85	1	03-5	1n	"	"	77-9
01-314		01-33	4	01-6	1n	"	"	90-1
		3499-70	1	01-2	2Ba	"	"	28504-6
		99-43	1	99-4	1	"	"	07-
		98-69	3	98-6	2	"	"	21-4
3498-686		98-24	1	98-3	1	"	"	23-
		95-99	1	98-0	1	"	"	24-1
		95-77	2	97-2	2	"	"	33-9
		91-65	2	95-7	1b	"	"	35-
90-464		91-24	1	91-6	1	"	"	48-2
		90-46	2	90-4	2	"	"	50-
		89-01	1	88-9	2	"	"	52-5
		88-91	2			"	"	65-8
87-610	3	87-6	2	"	"	68-0		
87-387	3	87-4	1	"	"	74-0		
82-380	3	84-1	1n	"	"	77-7		
82-269	3	82-3	2	"	"	80-		
78-670	3	79-5	2	"	"	86-		
77-798	1	78-6	2	"	"	96-1		
76-98	1	77-8	16Rh	"	"	97-9		
	1	76-7"	1b	"	"	28631-7		

OSMIUM—*continued.*

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo		
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$1 - \lambda$			
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek	Character					
		3314.88	1	3314.1	2	0.93	8.6	30158.4		
		13.60	1					"	"	70.1
3312.178		12.18	1					"	"	83.0
11.035		11.05	4			11.1	2	"	"	93.4
		09.83	1			"	"	30204.4		
06.352		06.34	3			"	"	36.3		
05.501		05.51	1			"	"	44.0		
04.980			0			"	"	48.8		
01.990			1			"	"	76.2		
01.692	3301.708	01.70	10	01.7	2	"	"	78.8		
3298.374			0	3297.3	2	0.92	"	30309.4		
		3293.29	1			"	"	56.2		
91.259		91.25	1			"	"	74.9		
		90.40	4	90.5	2	"	"	82.8		
89.387			4				"	"	92.2	
88.960		88.96	2				"	8.7	96.0	
88.616		88.57	1				"	"	99.4	
		86.81	1			"	"	30415.9		
84.680		84.68	1			"	"	35.7		
81.028		81.06	2			"	"	69.4		
79.590		79.55	1			"	"	83.1		
78.086		78.09	4			"	"	96.9		
76.533		76.54	1	75.5	1	"	"	30511.3		
						"	"			
75.320		75.31	4	75.3	2	"	"	22.7		
						"	"			
73.513		73.54	1	74.2	2	"	"	39.4		
72.607		72.63	1			"	"	47.9		
72.301		72.30	2	72.3	1	"	"	50.8		
72.118		72.12	1			"	"	52.5		
				72.0	1	"	"	54.		
71.320			0			"	"	60.0		
71.002		71.02	1			"	"	62.9		
70.025		70.05	1			"	"	72.0		
69.340		69.36	5	69.38	4	"	"	78.4		
68.080	3268.078	68.10	10	68.10	8	"	"	90.2		
67.338		67.34	1	67.40	8	"	"	97.2		
66.890		66.89	1			"	"	30601.4		
66.565			2			"	"	04.5		
64.820		64.85	1	64.8	1n	"	"	20.7		
62.880		62.89	4	63.00	4	"	"	39.0		
62.428		62.44	8	62.48	8	"	"	43.3		
				61.2	1	"	"	54.9		
60.683		60.70	1	60.7	1	"	"	59.6		
60.420		60.43	3	60.5	2	"	"	62.1		
59.530		59.56	1n			0.91	"	70.4		
57.051		57.05	3	57.1	2	"	"	93.9		
55.414		55.41	1			"	"	30709.4		
55.139			0			"	"	11.9		
55.038		55.04	3	55.1	2	"	"	12.9		
				54.4	1n	"	"	18.9		
				53.4	1n	"	"	28.4		
		52.14	2			"	8.8	40.2		
		51.03	1			"	"	50.7		
50.974			0			"	"	51.2		

OSMIUM—*continued.*

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
3250·695		3250·50	1	3250·7	2	0·91	8·8	30754·7
48·106		48·14	2n	48·1	1	"	"	78·1
				47·80	4	"	"	82·2
		45·79	1n	45·3	2	"	"	30800·3
						"	"	05·0
43·700			0			"	"	20·2
42·108		42·11	1			"	"	35·3
				42·0	1b	"	"	36·4
41·933		41·94	1	41·2	2	"	"	37·0
41·642		41·56	1			"	"	40·1
41·159		41·18	3			"	"	44·2
39·398			0			"	"	61·1
38·751		38·75	3			"	"	67·3
		38·30	1	38·3	1n	"	"	71·6
				37·0	1	"	"	84·0
				36·6	1	"	"	87·8
				36·2	1n	"	"	91·6
34·858		34·86	1	34·8	1	"	"	30904·4
34·651		34·81	1			"	"	05·7
34·318		34·34	1	34·3	1	"	"	09·5
32·672		32·67	1	32·6	1	"	"	25·4
32·196	3232·195	32·19	8	32·20	10	"	"	29·9
32·072			2			"	"	31·1
31·543		31·56	1	31·5	1	"	"	36·1
31·410		31·45	1			"	"	37·2
30·525		30·53	1	30·6	1n	"	"	45·9
				30·0	1n	"	"	51·
29·336		29·35	1			"	"	57·2
				29·1	1n	"	"	60·
				28·8	1	"	"	62·
27·409		27·41	2	27·4	1	"	"	75·8
				27·0	1	"	"	81·
26·579			0	26·5	1	"	"	83·8
23·987		23·99	1	24·0	1	"	"	31008·7
				22·5	1	"	"	23·
		21·53	1n	21·5	1n	"	"	32·3
21·444			4			"	"	33·1
20·895			0			0·90	"	38·5
20·408			1	20·4	1	"	"	43·2
20·318		20·36''	2			"	"	43·8
19·260		19·26	1	19·3	1	"	"	54·2
18·153		18·15	1			"	"	64·9
				17·4	1	"	"	72·
17·177		17·17	1	17·2	1	"	"	74·4
				16·8	1	"	"	78·
				16·6	1	"	"	80·
16·340			0			"	8·9	82·3
				15·8	1n	"	"	88·
				13·8	2n	"	"	31107·
		13·59	1	13·50	10	"	"	08·9
13·418		13·44	1			"	"	10·5
12·840		12·85	1	12·9	1	"	"	16·2
				12·6	1	"	"	19·
12·240			2			"	"	22·0

OSMIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
				3209.4	1	0.90	8.9	31150.
				08.1	2	"	"	62.
3205.909		3205.90	1	05.9	1n	"	"	83.5
				05.3	1n	"	"	89.
04.646		04.64	1	04.6	1n	"	"	95.8
				04.3	1	"	"	99.
04.155			2			"	"	31200.6
		03.44	1	03.5	1n	"	"	07.5
02.956		02.95	2	03.0	1	"	"	11.9
				01.3	1	"	"	28.
				01.0	1n	"	"	31.
		00.89	1			"	"	32.4
		3198.26	1	3198.3	1n	"	"	58.1
3197.310		97.30	1	97.3	1	"	"	67.2
96.152		96.11'	3°	96.2	2	"	"	78.9
96.082						"	"	79.4
95.494		95.50	3	95.5	2	"	"	85.1
94.805		94.80	2	94.8	1	"	"	92.0
94.350		94.37	3	94.4	2	"	"	96.3
93.986		93.99	2	94.0	1	"	"	99.9
		91.31	1			"	"	31326.2
				90.9	1n	"	"	30.2
89.566		89.56	3	89.6	2	"	"	43.4
87.443		87.45	2	87.5	1	"	"	64.2
				87.2	2	"	"	67.
87.096		87.08	3			"	"	67.7
		86.65''	1			"	"	72.0
86.643			2			"	"	72.1
86.516			2	86.50	4	"	"	73.3
85.439		85.42	3	85.4''	1	"	"	84.0
85.304			0			"	"	85.3
84.458		84.46	1			"	"	93.6
83.905			0			"	"	98.2
83.661			1			"	"	31401.5
				83.5	1	"	"	03.
83.341			0			"	"	04.6
		82.92	1	83.0''	1	"	"	09.
		82.68	2	82.7	2	"	"	11.2
		82.35	1			"	"	14.4
81.907		81.99	3	82.0	2	0.89	"	18.4
80.237		80.23	1	80.3	1	"	9.0	35.2
		79.37	1	79.6	1b	"	"	43.8
78.357		78.36	1	78.3	2	"	"	53.8
78.184		78.18	5			"	"	55.5
77.522		77.51	1			"	"	62.1
75.781		75.77	1	75.7	1n	"	"	79.4
				75.0	1n	"	"	87.1
74.284			1			"	"	94.2
74.037		74.05	1	74.03	8	"	"	96.6
73.609			0			"	"	31500.9
73.306		73.31	2	73.4	1	"	"	03.9
		72.96	1			"	"	07.3
				72.6	1	"	"	10.9
		71.75	1			"	"	19.3

OSMIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek	Character			
3171.249			0			0.89	9.0	31524.3
				3170.6	1	"	"	31.
				68.9	1n	"	"	48.
				68.5	2	"	"	52.
68.390		3168.39	2			"	"	52.8
				68.2	1n	"	"	55.
66.611		66.62	3	66.65	4	"	"	70.5
65.772			2	65.82	8	"	"	78.9
				64.8	1	"	"	89.
64.718		64.75	2	64.7	1	"	"	89.2
64.550			0			"	"	91.1
61.837		61.86	2	61.8	1	"	"	31618.1
61.547		61.55	2	61.6	1	"	"	21.1
60.540		60.57	2			"	"	31.1
60.397		60.44	1	60.4	1	"	"	32.4
59.477		59.48	1			"	"	41.8
				58.6	1	"	"	51.
				58.2	1	"	"	55.
57.342		57.35	2	57.3	1	"	"	63.2
57.102		57.11	1	57.1	1	"	"	65.6
56.878		56.89	3	56.9	2	"	"	67.8
56.365	3156.384	56.38	8	56.35	10	"	"	72.9
55.450		55.45	1			"	"	82.2
54.666			0	54.5	1b	"	"	90.1
53.727		53.72	3	53.7	2	"	"	99.6
52.806		52.80	3	52.8	2	"	"	31708.8
52.181		52.19	2	52.1	2	"	"	15.0
51.005			0			"	"	26.9
50.730			0n	50.7	1	"	"	29.7
50.260			0			"	"	34.4
49.927		49.93	1n	49.9	1	"	"	37.8
49.365			0			"	"	43.4
47.601						"	"	61.2
46.843			0			"	9.1	68.8
				46.5	1	"	"	72.
46.074		46.08	1	46.1	1	"	"	76.5
				45.4	1n	"	"	83.
44.471		44.50	2	44.5	2	"	"	92.6
43.169		43.19	1	43.2	1	"	"	31805.8
41.056		41.06	1	41.1	1	0.88	"	27.3
40.431		40.44	1	40.5	1	"	"	33.6
39.745			0			"	"	40.6
38.157			1	38.2	1	"	"	56.7
37.636		37.65	1	37.7	1	"	"	62.0
37.421			0			"	"	64.2
36.785			0			"	"	70.7
36.334			0			"	"	75.2
35.126			0			"	"	87.5
34.805			0			"	"	90.8
33.953			0	34.0	1	"	"	99.1
				32.8	1b	"	"	31911.
31.995			0			"	"	19.4
		31.62	1n			"	"	23.3
31.027		31.23	3	31.3	2	"	"	27.2

OSMIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
3131.021			0			0.88	9.1	31929.4
30.125		3130.14	1	3130.5	1	"	"	35.
29.348		29.35	1	30.2	1	"	"	38.4
				29.3	1	"	"	46.4
28.677		28.55	1n	29.0	1	"	"	50.
27.620			0	28.6	1	"	"	53.9
						"	"	64.1
25.643			0	27.0	1	"	"	70.
		25.05	1n	25.6	1n	"	"	84.3
						"	"	90.4
24.142		24.14	1n	24.4	1n	"	"	97.
						"	"	99.7
				23.5	1n	"	"	32006.
				22.8	1n	"	"	13.
21.592			0			"	"	25.8
21.307			0			"	"	28.8
20.777		20.77	1	20.8	1	"	"	34.2
20.016		20.00	1	20.0	1	"	"	42.0
19.196			0	19.2	1n	"	"	50.4
				18.5	2	"	"	58.
18.450		18.44	2			"	"	58.2
18.242		18.24	1	18.3	2n	"	"	60.3
18.014		18.00	1			"	"	62.7
17.215			0			"	"	70.8
16.593		16.59	1	16.6	1	"	"	77.6
15.838						"	"	85.0
			0	15.6	1n	"	"	87.4
15.150		15.13	1	15.1	1	"	"	92.2
14.932		14.92	1	15.0	1	"	"	94.4
13.405			0	13.5	1	"	9.2	32110.0
12.630			0			"	"	18.0
11.196		11.20	2	11.3	2	"	"	32.8
10.743		10.75	1	10.7	1	"	"	37.4
10.538			1	10.5	1	"	"	39.6
09.800		09.79	1	09.8	2	"	"	47.2
09.504		09.50	3	09.5	2	"	"	50.3
09.102		09.09	3	09.1	2	"	"	54.5
08.846			0	08.9	1	"	"	57.1
08.098		08.08	1	08.2	1	"	"	64.9
07.989		08.00	1			"	"	65.9
07.495		07.49	1	07.5	1	"	"	71.1
07.119			0			"	"	75.0
06.762			0	06.8	1n	"	"	78.7
06.114		06.10	3	06.2	2	"	"	85.4
				05.7	1	"	"	90.
				05.5	1	"	"	92.
05.098		05.09	2	05.2	1	"	"	95.9
				04.0	1	"	"	32207.
03.412		03.53	1n	03.5	1	"	"	12.8
02.835			2	02.9	1	"	"	19.4
02.503		02.50	1	02.5	1	"	"	22.7
		01.64	3	01.7	2	0.87	"	31.8
				01.3	1	"	"	35.
		3099.38	1	3099.4	1	"	"	55.3

OSMIUM—*continued.*

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
				3098.7	1	0.87	9.2	32262.
				95.2	1b	"	"	99.
3094.192		3094.20	1			"	"	32309.4
93.704		93.70	2	93.8	2	"	"	14.5
				92.8	1n	"	"	24.
92.613			0			"	"	25.9
				91.5	2	"	"	38.
91.368		91.38	1			"	"	38.9
90.613		90.62	1	90.7	1	"	"	46.8
90.416		90.42	1	90.5	1	"	"	48.9
90.205		90.21	2	90.3	2	"	"	51.1
				89.5	1n	"	"	58.
88.545			0	88.5	1	"	"	68.5
88.385		88.37	1			"	"	70.2
				88.0	1	"	"	74.
87.868			2			"	"	75.6
				87.3	1	"	"	82.
87.125			0			"	"	83.4
86.394		86.40	1	86.5	1	"	"	91.0
85.982			0			"	"	95.4
				85.2	2	"	"	32404.
85.004			2	85.0	1	"	"	05.7
84.715		84.72	1			"	"	08.7
				84.0	1	"	"	16.
				83.7	1	"	9.3	19.
83.565			0			"	"	20.7
				82.9	1	"	"	28.
				82.6	1	"	"	31.
81.313			0			"	"	44.4
80.907			0			"	"	48.7
				80.7	1n	"	"	51.
80.614			0			"	"	51.8
		79.67	1	79.7	1	"	"	61.7
				79.4	1	"	"	65.
78.496		78.48	2	78.6	1	"	"	74.2
78.227		78.20	3	78.3	2	"	"	77.1
77.834	3077.841	77.82	4	77.82	4	"	"	81.1
77.557		77.55	2	77.6	2	"	"	84.0
77.167		77.16	2	77.2	2	"	"	88.2
76.845		76.86	1n	76.8	1	"	"	91.4
				76.5	2	"	"	95.
75.074		75.06	2	75.2*	2	"	"	32510.3
74.771			0			"	"	
74.192		74.21	3	74.3	2	"	"	13.4
				73.3	2	"	"	29.
72.681			0			"	"	35.6
71.974			1			"	"	34.1
70.374		70.38	1	70.5	1	"	"	60.0
70.049		70.05	2	70.1	2	"	"	63.5
		69.25	1			"	"	71.9
66.945		66.97	1	67.1	1	"	"	96.3
66.715		66.71	1	66.6	1	"	"	98.9
66.225		66.25	2	66.3	1	"	"	32604.0
65.783			0			"	"	08.8

* 3076.0 (10) Zn? possibly belongs to Osmium.

OSMIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$1 - \lambda$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
3065.391			0			0.87	9.3	32613.0
63.480			1			"	"	33.3
62.803		3062.80	1			0.86	"	40.5
62.584		62.59	1			"	"	42.8
62.297		62.31	3	3062.23	4	"	"	45.8
62.039			0			"	"	48.7
61.814			1			"	"	51.1
60.412		60.44	2	60.5	2	"	"	65.9
60.248			0			"	"	67.8
58.782	3058.766	58.80	8	58.76	10	"	"	83.4
				58.4	1	"	"	88.
				58.2	1	"	"	90.
57.014		57.03	1	57.0	1	"	"	32702.3
56.315			0			"	"	09.8
55.726			0			"	"	16.2
55.326		55.33	1	55.4	2	"	"	20.4
				55.2	1	"	"	22.
55.086		55.09	1			"	"	23.0
54.780			0			"	"	26.3
54.620			1			"	"	28.0
54.091			2			"	9.4	33.6
53.743			0			"	"	37.3
				53.5	1	"	"	40.
53.004			0	53.0	1	"	"	45.2
52.540		52.55	1	52.5	1	"	"	50.2
				51.4	1	"	"	62.
51.280		51.29	1			"	"	63.7
50.517		50.53	2	50.6	2	"	"	71.9
49.580		49.58	2	49.6	1	"	"	82.0
49.172		49.17	1	49.2	2	"	"	86.4
47.574			1	47.6	In Fe	"	"	32803.6
46.200			0	46.3	1	"	"	17.
						"	"	18.4
45.898		45.90	1	46.0	1	"	"	21.6
45.430		45.43	1	45.4	1	"	"	26.7
45.031		45.04	1	45.1	1	"	"	31.0
44.525		44.54	1	44.6	1	"	"	36.4
44.191		44.20	1	44.2	1	"	"	40.0
44.040						"	"	41.7
43.793		43.78	2	43.8	1	"	"	44.4
43.622		43.62	2	43.7	1	"	"	46.2
42.860		42.85	1	42.83	8 Ti?	"	"	54.5
41.021	41.023	41.03	4	41.00	8	"	"	74.2
40.184			1			"	"	83.4
36.668			2			"	"	32921.4
				35.3	1	"	"	36.
33.843			0			"	"	52.1
33.331			2	33.4	2	"	"	57.6
32.924		32.94	1	33.0	1	"	"	62.0
31.828			1			"	"	74.0
31.418		31.41	1	31.5	1	"	"	78.5
31.122		31.13	1	31.2	1	"	"	81.6
30.817		30.83	4	30.82	8	"	"	84.9
29.496			2			"	"	99.4

OSMIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Inten- sity and Cha- racter	Wave- length	Inten- sity and Cha- racter	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
2989.253		2989.25	1	2989.2	1	0.85	9.6	33443.6
88.396		88.37	1	88.5	1	"	"	53.3
		87.76	1			"	"	60.3
				86.2	1	"	"	78.
85.752		85.75	1	85.7	1	"	"	82.8
85.084			0	85.0	1	"	"	90.3
84.751			0			"	"	93.8
84.419		84.43	1n			"	"	97.7
				83.6	2	"	"	33507.
				83.2	1	"	"	11.
83.032		83.05	2			"	"	13.2
82.680		82.70	1			0.84	"	17.2
82.252		82.25	1			"	"	22.1
				81.7	1b	"	"	28.
80.453			0	80.5	1	"	"	42.3
79.802			0			"	"	49.7
79.555		79.54	1	79.5	1	"	"	52.5
78.645		78.63	1	78.7	1	"	"	62.7
78.338		78.31	1	78.4	1	"	"	66.3
77.757		77.75	2	77.7	2	"	"	72.8
				77.5	1	"	"	76.
76.470			0			"	"	87.2
75.461		75.45	1	75.5	1	"	"	98.7
				75.3	1	"	"	33600.
		72.36	1	72.3	1n	"	"	33.7
71.098		71.10	3	71.10	4	"	"	48.0
70.825		70.80	1			"	9.7	51.1
69.938			0			"	"	61.0
		68.55	1	68.5	1b	"	"	76.8
67.860			0			"	"	84.6
				67.0	1	"	"	94.
66.685			0			"	"	97.9
66.428			0	66.4	1	"	"	33700.9
66.217			0			"	"	03.3
				65.6	1	"	"	10.
65.215			1	65.3	1	"	"	14.7
64.890			0			"	"	18.4
		64.75	1	64.7	1	"	"	20.0
64.190		64.21	3	64.2	2	"	"	26.2
63.178			0	63.1	1	"	"	37.8
63.005			1			"	"	39.8
62.819			0			"	"	41.9
62.465		62.45	2			"	"	46.1
62.272		62.29	2	62.3	2	"	"	48.1
61.526			0			"	"	56.7
61.140		61.15	2	61.1	2 Cu ?	"	"	61.1
58.467		58.48	1			"	"	91.5
57.774			0			"	"	99.5
57.214		57.20	1	57.2	1	"	"	33806.0
56.629		56.62	1	56.6	1	"	"	12.6
				56.3	1	"	"	16
55.128		55.13	1	55.1	1	"	"	29.8
				54.7	1	"	"	35.
				53.7	1	"	"	46.

OSMIUM—*continued*.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda} -$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
2952·412		2952·45	1	2952·4	1	0·84	9·7	33860·7
				51·7	1	"	"	69·
51·357			1	51·3	1	"	"	73·0
50·986			1	50·9	1	"	"	77·3
		50·00	1			"	"	88·6
49·930		49·93	1			"	"	89·4
				49·8	1	"	"	91·
49·635			3			"	"	92·8
49·635		49·63	3	49·62	6	"	"	92·8
48·328		48·33	4	48·30	4	"	"	33907·8
47·277			0			"	"	19·9
46·705			0			"	"	26·5
45·437			0	45·5	1	"	9·8	41·0
				44·2	1n	"	"	55·
43·756			1			"	"	60·4
43·291			2			"	"	65·8
42·981		42·96	2	43·03	4	0·83	"	69·5
42·692			0			"	"	72·7
42·348		42·32	1n			"	"	76·8
42·267			1			"	"	77·6
41·989			0			"	"	80·8
				41·0	1b	"	"	92·
40·873			0			"	"	93·7
40·694			0			"	"	95·8
40·208			0			"	"	34001·4
39·519			0			"	"	09·4
38·590			0			"	"	20·1
38·491			0	38·4	1n	"	"	21·3
37·111			0	37·0	2n	"	"	37·3
36·817			2			"	"	40·7
				35·6	1b Zn?	"	"	55·
35·083			0			"	"	60·8
34·779		34·75	2	34·7	1	"	"	64·5
34·420			0			"	"	68·5
34·111			3	34·1	1	"	"	72·1
32·585			2	32·6	1	"	"	89·8
				32·4	1	"	"	92·
31·879			0			"	"	98·0
31·416		31·42	2	31·3	2	"	"	34103·4
30·704		30·69	1	30·6	1	"	"	11·8
30·334		30·32	1	30·3	1	"	"	16·1
29·646		29·62	2	29·5	2	"	"	24·2
27·370			0			"	"	50·5
				26·0	1	"	"	67·
25·708		25·69	2	25·6	2	"	"	70·1
25·414		25·41	1			"	"	73·4
24·617		24·64	1	24·6	1	"	"	82·6
23·298			2			"	"	98·1
23·109			0	23·1	1n	"	"	34200·4
22·818			0			"	"	03·8
21·193		21·20	1	21·3	1b	"	9·9	22·6
20·974			0			"	"	25·2
20·204			1			"	"	34·3
19·935		19·94	4	19·85	8	"	"	37·4

OSMIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda} -$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
2919.380			0			0.83	9.9	34243.9
19.053			0				"	47.8
17.946		2917.94	2	2917.8	2	"	"	60.8
17.383		17.37	3	17.3	2	"	"	67.5
16.193			0			"	"	81.4
15.586			0	15.7	1	"	"	88.5
15.382			0			"	"	90.9
14.841		14.84	1	14.7	1	"	"	97.3
14.341			1			"	"	34303.2
13.969		13.96	1	13.8	1	"	"	07.6
12.470		12.47	3	12.40	8	"	"	25.2
11.939			0			"	"	31.5
11.695			0			"	"	34.4
11.466		11.47	1			"	"	37.2
11.269			0	11.2	1b	"	"	39.4
10.801			1			"	"	44.9
				10.6	2	"	"	47.
09.797	2909.79		1			"	"	56.8
				09.6	1n	"	"	59.
09.185		09.20	8	09.05	10	"	"	63.9
08.468			0			"	"	72.5
08.150		08.15	1	08.1	1	"	"	76.2
				07.1	1n	"	"	89.
06.909			0			"	"	90.9
				06.7	1	"	"	94.
06.103		06.09	1	06.0	1	"	"	34400.5
05.862		05.85	1	05.8	1	"	"	03.4
03.354		03.34	1	03.2	2	0.82	"	33.1
03.193		03.21	1			"	"	34.8
01.455		01.45	1			"	"	55.6
01.308			0			"	"	57.3
				01.2	1	"	"	59.
				00.3	1	"	"	69.
2899.372			0	2899.3	2	"	"	80.3
98.023			0			"	"	96.4
96.183		2896.19	2	96.2	2	"	10.0	34518.2
		95.19	1	95.3	1	"	"	30.0
93.014			0			"	"	56.0
92.466		92.47	1	92.4	1	"	"	62.6
91.961		91.98	1			"	"	68.5
90.970		91.00	1	90.9	1	"	"	80.3
89.654			0			"	"	96.2
89.280			1			"	"	34600.7
86.622		86.65	1n			"	"	32.4
86.368			0	86.3	2	"	"	35.4
86.182			0			"	"	37.8
85.295			0	85.2	2	"	"	48.5
84.967			0			"	"	52.4
84.537		84.55	1	84.4	1b Zn?	"	"	57.5
84.064			1			"	"	63.3
				83.4	1n	"	"	71.
				82.6	1b	"	"	81.
				81.8	1n	"	"	91.
80.477			0			"	"	34706.5

OSMIUM—*continued.*

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Inten- sity and Cha- racter	Wave- length	Inten- sity and Cha- racter	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
2880·327			2	2880·3	2	0·82	10·0	34708·3
79·956			0			"	"	12·7
				79·4	2	"	"	19·
79·095			0			"	"	23·1
78·524		2878·52	2			"	"	30·1
				78·4	2	"	"	32·
				77·7	1	"	"	40·
77·464		77·46	2	77·4	1	"	"	42·8
76·602			0			"	"	53·2
75·930			0			"	"	61·4
				75·4	2	"	"	68
75·083		75·07	3	75·0	2	"	"	71·7
74·700		74·73	1	74·7	1	"	"	75·4
				74·2	1	"	"	82·
73·534			3			"	"	90·4
73·126			0			"	"	95·3
72·529		72·52	2			"	10·1	34802·5
				72·4	1	"	"	04·
				71·3	2	"	"	17·
				69·0	1n	"	"	45·
				67·5	1b	"	"	64·
						"	"	66·9
67·216			1			"	"	83·0
65·892			0			"	"	84·3
65·802		65·80	1	65·7	1	"	"	92·3
65·131			0			"	"	34901·6
64·366			2	64·3	1n	0·81	"	13·
				63·4	2	"	"	30·
				62·0	1	"	"	31·8
61·895			0			"	"	41·7
61·075		61·09	3	61·00	4	"	"	52·8
60·184		60·17	1	60·1	1	"	"	70·4
58·733			0			"	"	76·8
58·210			0			"	"	83·6
57·659		57·65	1			"	"	90·2
57·117			0			"	"	92·
				57·0	1	"	"	94·
				56·8	1	"	"	35010·6
55·455		55·45	1			"	"	13·
				55·3	1	"	"	26·0
53·971			0			"	"	29·
				54·2	1n	"	"	35·3
53·441			0	53·5	1n	"	"	52·
				52·1	1n	"	"	63·
				51·2	1	"	"	66·7
50·877		50·89	3	50·82	4	"	"	84·8
49·427		49·40	1n			"	"	86·
				49·3	1	"	"	87·9
49·175		49·15	1	49·1	1	"	"	97·8
48·360		48·35	2	48·3	2	"	10·2	35109·5
47·408			0			"	"	18·5
46·707		46·65	1			"	"	20·7
46·507		46·50	2			"	"	22·
				46·4	2	"	"	33·
				45·5	1n	"	"	

OSMIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
2845·067			0			0·81	10·2	35138·4
44·802		2844·80	1			"	"	41·7
44·501		44·51	3			"	"	45·3
				2844·42	6	"	"	46·4
				43·0	1	"	"	64·
41·711		41·70	2			"	"	79·9
				41·5	1	"	"	82·
40·557			2			"	"	94·2
				40·0	1	"	"	35201·
39·792			0	39·7	1	"	"	03·7
38·751		38·74	4	38·70	8	"	"	16·6
38·283		38·28	2	38·2	2	"	"	22·4
37·542		37·53	2			"	"	31·6
				37·4	1n	"	"	33·
				36·2	1	"	"	48·
				34·3	1	"	"	72·
				32·6	1	"	"	93·
32·345		32·35	1	32·3	1	"	"	96·2
31·693			2			"	"	35304·3
				31·5	1	"	"	07·
				31·3	1	"	"	09·
				29·9	1	"	"	27·
29·468		29·40	2			"	"	32·5
29·390			2	29·3	1	"	"	33·1
29·138			0			"	"	36·2
				28·4	1	"	"	45·
27·670			0			"	"	54·6
27·038			0			"	"	62·5
25·437			0			"	"	82·5
				25·3	1	"	"	84·
25·013			1			"	"	87·9
24·918			0			0·80	"	89·0
				24·8	1	"	"	91·
24·283		24·27	1	24·2	1	"	"	97·0
24·051			0			"	"	99·9
23·687			0			"	10·3	35404·4
21·367		21·37	1			"	"	33·5
				21·2	2	"	"	36·
20·682		20·66	1			"	"	42·3
				20·5	1	"	"	44·
20·298		20·30	1	20·2	2	"	"	47·3
19·601			0			"	"	55·7
19·349			1			"	"	58·9
18·897			0	18·8	1	"	"	64·6
				18·1	1	"	"	75·
				17·2	1	"	"	86·
				16·7	2	"	"	92·
				16·3	1	"	"	97·
15·895		15·90	2	15·8	2	"	"	35502·4
15·380		15·40	1n			"	"	08·8
14·962		19·98	1n			"	"	14·0
14·602			0			"	"	18·7
14·318		14·34	2			"	"	22·1
				14·2	2	"	"	24·

OSMIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character			
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek		$\lambda +$	$\frac{1}{\lambda -}$	
2813·904		2813·94	2	2813·8	2	0·80	10·3	35527·3
13·130			0			"	"	29·
11·683			2			"	"	37·3
10·680			0	40·7	1b	"	"	55·6
10·468			0			"	"	68·3
09·815			0			"	"	71·0
09·045		09·04	3			"	"	79·2
				08·8	2	"	"	89·0
08·357			0			"	"	92·
07·910			0			"	"	97·7
07·025		07·03	4			"	"	35603·4
				06·9	2	"	"	14·6
05·576			0			"	"	16·
04·185		04·19	2			"	"	33·0
04·055			0			"	"	50·7
02·039			1	02·0	2 Pb	"	"	52·3
2799·692			1			"	"	78·0
96·833		2796·84	2			"	10·4	35707·9
96·221			0			"	"	44·3
				2795·9	2b	"	"	52·2
95·275			1			"	"	56·
94·309		94·30	1	94·2	1n Pt	"	"	64·3
94·091		94·10	1			"	"	76·7
92·844			0			"	"	79·3
				92·1	1n	"	"	95·4
91·007			2			"	"	35805·
89·620			0			"	"	19·0
87·153			1			"	"	36·8
86·904		86·90	1			"	"	68·5
				86·8	1	"	"	71·7
86·414		86·41	3	86·4	2	"	"	73·
86·061			1			"	"	78·0
85·147			2	85·2	1 Ba	"	"	82·6
				84·8	1n	"	"	94·3
				84·0	2	"	"	99·
82·658		82·69	2	82·7	2	0·79	"	35909·
81·972						"	"	26·2
				81·2	1n	"	"	35·3
80·970			0			"	"	45·
80·269			0			"	"	48·3
79·584			0·			"	"	57·3
79·197			1			"	"	66·2
77·011		77·01	1			"	"	71·2
75·004		75·01	1			"	10·5	99·5
74·488		74·50	1			"	"	36025·4
74·257		74·25	1			"	"	32·1
74·125		74·13	1			"	"	35·2
73·592			0			"	"	36·9
73·176		73·18	1			"	"	43·8
71·869			0			"	"	49·2
71·150			1			"	"	66·2
70·825			4			"	"	75·6
70·213		70·22	1			"	"	79·8
						"	"	87·8

OSMIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
2769·975		2770·00	1			0·79	10·5	36090·7
69·385			3			”	”	98·6
68·369			0			”	”	36111·8
67·236		67·25	1			”	”	26·5
66·650			1			”	”	34·3
65·541		65·55	1	2765·5	1	”	”	48·7
65·143			2	65·2	2	”	”	54·0
64·637			0			”	”	60·6
		64·15	2	64·1	1	”	”	67·0
64·032			2			”	”	68·5
		64·05	1			”	”	68·3
63·371		63·39	2	63·4	2	”	”	77·1
62·745			0			”	”	85·4
61·530		61·54	2	61·6	2	”	”	36201·2
61·184		61·21	1			”	”	05·5
60·168			0			”	”	19·2
58·923		58·95	1			”	”	35·3
58·775			0			”	”	37·5
57·902		57·91	1			”	”	48·9
56·095			0			”	”	73·8
55·680			0			”	”	78·2
54·780			0			”	”	90·0
53·792		53·83	1			”	”	36302·3
51·875			0			”	”	28·4
51·246		51·25	1	51·3	1	”	10·6	36·5
50·970			0			”	”	40·2
				50·6	1	”	”	45·
				50·4	1	”	”	48·
				49·4	2	”	”	61·
		49·30	1			”	”	62·3
				49·1	1	”	”	65·
48·964		48·97	1			”	”	66·7
48·003		48·01	1	48·1	2	”	”	79·5
45·632			1			”	”	36410·9
44·981			0			”	”	19·5
				44·6	1n	”	”	25·
				44·2	1	”	”	30·
42·801			0			”	”	48·5
				42·6	1	”	”	51·
				42·3	1	”	”	55·
		41·50	1	41·5	1	0·78	”	65·8
40·862		40·84	1			”	”	74·4
40·701		40·70	1	40·7	2	”	”	76·4
40·414		40·42	1	40·4	2	”	”	80·2
38·636			2	38·6	1n	”	”	36503·9
38·427			0			”	”	06·7
				37·8	1	”	”	15·
				37·5	1	”	”	19·
				37·1	1	”	”	24·
				36·7	1n	”	”	30·
36·479			1			”	”	32·7
35·848			0			”	”	41·1
32·905		32·90	3	32·9	2	”	”	80·5
31·931			0			”	”	93·5

OSMIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
2731.467			1			0.78	10.6	36599.8
				2731.38	4	"	"	36600.9
30.782			4	30.8	2	"	"	08.9
29.093			0			"	"	31.6
		2728.63	1			"	"	37.8
28.364			2			"	"	41.4
				28.2	2n	"	"	44.
27.357			0			"	"	54.9
				23.8	1	"	10.7	36703.
22.867			0	22.9	1n	"	"	15.3
22.700			0			"	"	17.5
21.959		21.97	3	22.0	2	"	"	27.5
				21.1	1	"	"	39.
20.578			1			"	"	46.2
20.130		20.15	3	20.2	2	"	"	52.2
				19.2	1 Pt ?	"	"	65.
				19.0	1	"	"	68.
18.796			1			"	"	70.3
				18.6	1	"	"	73.
17.839			0			"	"	83.2
17.488			0			"	"	88.0
17.162			0			"	"	92.4
				16.0	1	"	"	36808.
				15.9	1	"	"	10.
15.726		15.72	1			"	"	11.9
15.471		15.46	2n	15.5	1	"	"	15.4
14.997			0			"	"	21.8
14.744		14.74	2	14.7	2	"	"	25.2
13.300			0			"	"	44.8
12.848			0			"	"	50.9
				11.1	1n	"	"	75.
				10.5	1	"	"	83.
09.953		09.96	1	10.0	1	"	"	90.3
				09.2	1n	"	"	36901.
08.276		08.27	1	08.25	4	"	"	13.2
07.519		07.51	1	07.6	1	"	"	23.5
				07.2	1	"	"	28.
06.804		06.80	2	06.8	2	"	"	33.3
		06.04	1			"	"	44.2
05.547			0	05.6	1n	"	"	49.7
04.695			9			"	"	62.0
04.551		04.55	1			"	"	64.0
				04.2	1	"	"	69.
03.203			0	03.2	1n	"	10.8	82.3
				03.0	1	"	"	85.
		02.92	1			"	"	86.2
				02.7	1	"	"	89.
				02.6	1 Pt ?	"	"	91.
		02.50	1			"	"	92.0
				01.4	1	"	"	37007.
00.840		00.82	1	00.9	1	"	"	14.9
				00.6	1	"	"	18.
2699.688		2699.68	2	2699.7	2	"	"	30.6
				98.5	1n	"	"	47.

OSMIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
2698·321			0	2698·0	1	0·77	10·8	37049·3
				97·6	1	"	"	54·
97·338		2697·34	1	97·4	1	"	"	59·
				97·0	1	"	"	62·8
96·709			0			"	"	67·
				96·4	1	"	"	71·4
				95·0	1	"	"	76·
94·854		94·86	1			"	"	95·
				94·7	1	"	"	96·9
94·615		94·61	1			"	"	99·
				92·9	2	"	"	37100·3
92·790		92·77	1			"	"	24·
92·021			0	92·1	2	"	"	25·5
91·483			0	91·5	2	"	"	36·0
89·904		89·89	3	89·85	4	"	"	43·4
89·447		89·44	1	89·4	1 Cu ?	"	"	65·3
				89·2	1n	"	"	71·6
88·174		88·18	1	88·2	1	"	"	75·
87·277			0	87·3	1	"	"	89·1
86·777			0	86·8	1n	"	"	37201·6
86·624			0			"	"	08·5
85·973			0	86·0	1	"	"	10·6
84·497			2			"	"	19·7
83·974			0			"	"	40·1
				82·8	1	"	"	47·4
82·279		82·30	1	82·3	1	"	"	64·
80·806			0			"	"	70·9
79·825		79·83	1n	79·8	1	"	"	91·4
79·457			0	79·5	1	"	"	37305·0
78·870			0			"	10·9	10·2
77·473			0	77·5	2	"	"	18·3
74·969		75·00	2	75·0	2	"	"	37·8
74·793			0			"	"	72·5
74·654		74·68	2	74·7	2	"	"	75·2
				73·7	1	"	"	76·9
				73·4	1	"	"	90·
						"	"	95·
72·145			0			"	"	37412·2
				71·9	1	"	"	16·
				71·3	1b	"	"	24·
70·640		70·66	1n			"	"	33·2
				69·9	1	"	"	44·
69·606		69·61	1	69·6	1	"	"	47·8
69·158			0			"	"	54·1
67·593			0	67·6	2	"	"	76·1
				67·0	1	"	"	84·
				66·8	1	"	"	87·
66·295		66·31	1n	66·3	1	"	"	94·2
				66·2	1	"	"	96·
66·079		66·08	1n			"	"	97·4
65·370			0			"	"	37507·3
64·879			4			"	"	14·3
64·390			0	64·5	1n	"	"	21·1
63·950			0	64·0	1n	"	"	27·3

OSMIUM—*continued.*

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	λ +	1 - λ	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
2663·314			2	2663·3	6 Pb	0·77	10·9	37536·4
62·653		2662·63	1	62·6	1	"	"	45·8
62·069			2	62·0	1	"	"	53·9
				61·8	1	"	"	58·
		61·29	2	61·3	2	"	"	64·9
61·011		61·05	1	61·1	1	"	"	68·5
59·924		59·91	2	60·0	2	"	"	84·3
		59·55	2 Pt ?	59·6	1	"	"	89·4
58·682		58·69	3	58·68	6 Pd ?	"	"	37601·7
57·203			0					22·7
56·774		56·76	2	56·7	2	"	"	28·8
				56·3	1n	"	"	35·
55·879		55·89	1n	55·9	1	"	"	41·3
55·297		55·29	1n	55·6	1	"	"	49·7
				55·3	1	"	"	50·
				54·7	1	0·76	11·0	58·
53·860		53·86	1	53·8	1	"	"	70·0
53·388			1	53·3	1	"	"	76·7
53·068		53·06	1	53·1	1	"	"	81·2
				52·5	1	"	"	89·
52·369			0			"	"	91·1
51·562			0			"	"	37702·6
				51·2	1	"	"	08·
				51·1	1	"	"	09·
50·754			0	50·7	1n	"	"	14·1
				49·7	1n	"	"	29·
49·428		49·43	2	49·4	2	"	"	33·0
				48·2	1	"	"	50·
47·817		47·82	2	47·8	2	"	"	55·9
		47·00	2 Pt ?	47·0	2 Pt ?	"	"	67·6
				46·4	1	"	"	76·
				45·7	1n	"	"	86·
45·207			0	45·3	1n	"	"	93·2
44·211		44·23	3	44·13	4	"	"	37807·2
43·727		43·74	1	43·7	1	"	"	14·3
43·132			1			"	"	22·9
				42·8	1	"	"	28·
41·700			2	41·6	1	"	"	43·4
41·271		41·30	1n	41·3''	1	"	"	49·4
40·625			0	40·6	2	"	"	58·8
40·079			0			"	"	66·7
39·533			0			"	"	74·5
				39·2	2	"	"	79·
38·428			0	38·4	2	"	"	90·4
38·081		38·10	1	38·0	1	"	"	95·2
37·223		37·25	3	37·12	6	"	"	37907·5
34·547		34·55	1n			"	"	46·2
34·375		34·38	1n	34·4	1	"	"	48·6
				33·2	1	"	"	66·
32·994		32·99	1	33·0	1	"	"	68·6
				32·0	1	"	"	83·
				31·4	1	"	11·1	91·
				31·2	1	"	"	94·
				29·5	1	"	"	38019·

OSMIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
2628·377		2628·56	2	2628·5 28·4 27·8 27·3 26·5	1 1 Fe 1 1 1	0·76 " " " "	11·1 " " " "	38032·5 35·2 44· 51· 62·
25·436			0			"	"	77·8
24·677			0	24·7 24·3	1n 1	" "	" "	88·8 94·
23·711			0	23·6 23·3	1n 1	" "	" "	38102·8 05·
21·912		21·95	2	21·9	1	"	"	09·
21·473		21·50	1	21·5	1	"	"	23·7
20·723		20·75	1	20·7	1	"	"	35·2
20·035		20·05	3	20·1 19·5	1 1	" "	" "	46·1 56·2
18·923			0			"	"	64·
18·435			0			"	"	72·5
17·895			0	17·8	2	"	"	79·6
17·062			0			"	"	87·5
		16·05	1n			"	"	38200·0
15·122			0			"	"	14·5
14·158			0			"	"	28·0
13·167		13·17	3	13·1	2	"	"	42·1
12·732		12·75	2			"	"	56·6
				12·6	1	"	"	62·9
11·410		11·45	1			"	"	65·
10·881		10·89	2	10·8	1	"	"	82·1
09·669		09·67	2			0·75	"	90·1
09·303		09·30	1			"	11·2	38307·9
08·342			0			"	"	13·2
				05·2	1b	"	"	27·3
05·051			0			"	"	74·
04·701		04·70	1			"	"	75·8
03·554			0			"	"	80·9
03·323		03·30	1			"	"	97·8
				03·1	1	"	"	38401·2
02·444		02·43	1			"	"	05·
00·855		00·86	1			"	"	14·3
00·560		00·56	1			"	"	37·7
00·003		00·03	1			"	"	42·1
				2599·9	1	"	"	50·1
		2599·25	1			"	"	52·
2597·990			0	97·9	1	"	"	61·4
97·664		97·69	1			"	"	81·4
				97·5	1	"	"	84·7
		97·38	1			"	"	87·
97·319		97·32	1			"	"	89·1
97·092			0			"	"	90·0
96·783		96·81	1	96·7	1	"	"	93·4
96·474			0			"	"	97·8
				96·3	1	"	"	38502·6
96·101		96·11	1			"	"	05·
				96·0	1	"	"	08·0
						"	"	10·

OSMIUM—*continued*.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda} -$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
2594.238		2594.25	1	2595.9	1	0.75	11.2	38511.
94.000			0	94.2	1	"	"	35.7
				92.7	1	"	"	39.3
92.082		92.10	1	92.1	1	"	"	59.
90.859		90.87	2			"	"	67.7
				90.7	2	"	"	86.0
89.595		89.59	1	89.6	1n	"	"	88.
89.495		89.50	1			"	"	38604.9
88.517			0			"	"	06.3
				88.4	1	"	11.3	20.9
87.575		87.56	1n	87.5	1	"	"	23.
86.995			0	86.9	1	"	"	35.0
				86.1	1	"	"	43.6
				83.6	1n	"	"	57.0
82.027		82.06	2	82.0	1	"	"	94.
81.154		81.17	1	81.1	1	"	"	38717.7
80.120			2	80.08	4	"	"	30.9
79.839			0			"	"	46.6
78.430		78.42	1	78.4	2	"	"	50.8
78.284		78.26	1			"	"	72.1
77.141			0			"	"	74.4
				76.5	1	"	"	91.4
74.852			1			"	"	38801.
73.601			0			"	"	25.9
73.198			0			"	"	44.8
72.572		72.60	1n			"	"	50.8
71.878		71.90	1	71.8	1	"	"	60.4
71.611			0			"	"	70.6
71.244		71.25	1			"	"	74.8
70.855			0			"	"	80.3
68.937		68.95	1	69.0	1	"	"	86.3
67.335			0			"	"	38915.2
				67.0	1	"	11.4	39.5
66.595		66.62	2	66.6	1	"	"	45.
65.816			0			"	"	50.5
65.261		65.28	1			"	"	62.6
64.469		64.50	1			"	"	70.8
64.287			1			0.74	"	82.8
63.257			2	63.3	2	"	"	85.8
62.771		62.78	1			"	"	39000.8
60.831			0			"	"	08.8
60.578			0			"	"	38.4
60.308			0			"	"	42.3
58.191		58.20	1			"	"	46.4
57.868		57.87	1			"	"	78.6
56.179		56.17	1			"	"	83.6
55.902		55.90	1			"	"	39109.6
55.378		55.35	1			"	"	13.7
55.205		55.20	1			"	"	22.0
54.558		54.55	1			"	"	24.4
50.873			0			"	"	34.4
48.930			1	48.9	2	"	"	90.9
				48.4	1	"	11.5	39220.6
						"	"	29.

OSMIUM--continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
2548.196			2	2548.2	1	0.74	11.5	39231.9
		2547.80	1	47.7	1	"	"	38.0
47.289			0			"	"	45.9
				47.1	1	"	"	49.
				46.9	1	"	"	52.
46.261		46.25	1	46.2	1n	"	"	61.9
				45.0	1 Cu ?	"	"	81.
44.067			4	44.1	1	"	"	95.4
43.892		43.90	1	43.9	1	"	"	98.3
				43.0	1	"	"	39312.
42.592		42.60	1	42.6	2	"	"	18.4
				42.2	1	"	"	25.
41.747			0			"	"	31.5
				41.6	1	"	"	34.
40.835		40.85	1	40.8	1n	"	"	45.5
				40.4	1	"	"	52.
40.230		40.25	1	40.2	1	"	"	54.9
39.751			0			"	"	62.4
				39.0	1	"	"	74.
				38.8	1	"	"	77.
38.500			0			"	"	81.8
38.174		38.17	1			"	"	86.9
38.087		38.10	3	38.10	4	"	"	88.1
				36.8	1n Zn?	"	"	39408.
36.184			0			"	"	17.8
35.484			0	35.5	1	"	"	28.7
34.270		34.25	1			"	"	47.7
32.732			0			"	"	71.6
		32.53	1	32.5	1	"	"	74.7
32.083			1	32.0	2	"	"	82.
				31.5	1n	"	"	91.
				29.6	1 Cu ?	"	11.6	39520.
29.047			0			"	"	29.0
27.832			1	27.8	1	"	"	48.0
27.335			0			"	"	55.8
27.174		27.15	1			"	"	58.5
26.833			0			"	"	63.6
				26.4	1	"	"	70.
		26.10	1	26.1	1	"	"	75.1
				25.4	1	"	"	86.
24.879						"	"	94.3
				24.3	1	"	"	39603.
				22.9	1	"	"	25.
20.156			0			"	"	68.5
19.886		19.86	1	19.9	1	"	"	72.9
				19.1	2	"	"	85.
18.533		18.52	1	18.5	2	"	"	94.1
18.006		18.00	1	18.0	1	"	"	39702.4
15.140		15.13	1	15.1	1	0.73	"	47.7
13.340		13.34	1	13.3	2	"	"	76.1
12.970		12.98	1	13.0	1	"	"	81.9
				12.3	1n Zn?	"	"	93.
				10.8	1	"	11.7	39816.
10.591			0	10.5	1	"	"	19.6

OSMIUM—*continued.*

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
2510.024		2510.04	1			0.73	11.7	39828.4
09.809			0					32.0
				2509.7	2	"	"	34.
08.707		08.71	1			"	"	49.4
07.282			0	07.2	1	"	"	72.1
06.767			0			"	"	80.3
06.481			0	06.5	1n	"	"	84.6
04.603			0			"	"	39914.8
		04.59	1			"	"	15.0
04.486		04.49	1			"	"	16.6
03.766			2	03.7	1	"	"	28.7
02.382		02.38	1			"	"	50.2
01.963			0			"	"	56.9
01.016		01.00	1			"	"	72.2
00.820		00.80	1			"	"	75.3
2498.512		00.01	1			"	"	88.1
		2498.50	2			"	"	40012.2
				2497.1	2	"	"	35.
96.425			1			"	"	45.6
				95.1	1b	"	"	69.
93.935			0			"	11.8	85.5
93.710		93.70	1			"	"	89.2
				93.6	1	"	"	91.
92.477		92.46	1	92.5	1	"	"	40109.1
				92.1	1	"	"	15.
91.789		91.76	1			"	"	20.2
91.106		91.11	1			"	"	31.0
				90.7	1n	"	"	38.
				89.7	1	"	"	54.
89.370			0	89.3	2	"	"	59.6
89.113			0			"	"	63.1
88.890			0			"	"	66.8
88.640		88.64	3	88.65	4	"	"	70.8
88.415			1			"	"	74.4
				88.3	1n	"	"	76.
86.326		86.33	2	86.3	4 Zn	"	"	40208.2
				85.7	1	"	"	18.
85.424			0			"	"	22.8
				85.3	1	"	"	25.
				84.3	1n	"	"	41.
				83.4	1	"	"	56.
				82.8	1	"	"	65.
82.524		82.50	1	82.5	1	"	"	70.0
81.892		81.89	1	81.9	1	"	"	80.1
80.825			0			"	"	97.4
				79.9	1	"	"	40312.
77.100			0			"	"	58.0
76.923		76.93	1	76.9	2	"	"	60.8
76.179			0			"	11.9	72.9
75.769			0			"	"	79.6
75.064			0	75.1	1	"	"	91.1
				74.9	1	"	"	94.
				74.1	1	"	"	40407.

OSMIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
2473·756			0			0·73	11·9	40412·6
				2473·6	1	"	"	15·
				73·3	1	"	"	20·
				72·9	1	"	"	26·
72·378		2472·37	1	72·4	1	"	"	35·0
70·925			0			"	"	58·8
				70·8	1	"	"	61·
				70·5	1	"	"	66·
				70·2	1	"	"	71·
				69·6	1	0·72	"	80·
				68·92	4	"	"	92·
68·209			0			"	"	40503·3
67·420			0			"	"	16·3
66·535			0			"	"	30·8
				65·3	2	"	"	51·
64·577		64·59	1n			"	"	62·9
		64·11	1n			"	"	70·7
61·508		61·51	2	61·5	2	"	"	40613·6
56·940			0			"	12·0	39·4
				58·8	1	"	"	58·
57·804			0			"	"	74·7
				57·7	2	"	"	76·
57·273			0			"	"	83·5
56·555		56·55	1			"	"	95·4
55·716			0			"	"	40709·3
55·422			0			"	"	14·2
				55·1	2	"	"	20·
55·002			1			"	"	22·2
				54·7	1	"	"	26·
54·278			0			"	"	33·2
53·989		54·00	1	54·0	1	"	"	37·9
				53·5	2	"	"	46·
53·392			0			"	"	47·9
52·869			0			"	"	56·6
				52·7	1	"	"	59·
		51·84	1			"	"	73·7
				51·7	1	"	"	76·
				51·4	2	"	"	81·
51·290			0			"	"	82·8
50·833	2450·83	50·85	1	50·8	2	"	"	90·3
50·581			0			"	"	94·6
49·987			0			"	"	40804·5
				48·5	1	"	"	29·
				47·4	1	"	"	48·
				46·4	1n	"	"	64·
46·125		46·11	1	46·1	1	"	"	69·1
45·980		46·00	1			"	"	71·4
				45·2	1n Zn?	"	"	84·
				44·6	1	"	"	94·
				44·3	1	"	"	40900·
				43·8	2	"	12·1	08
42·104			0			"	"	36·2
				41·1	1	"	"	53·
40·913			0			"	"	56·2

OSMIUM—*continued.*

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
				2440.8 40.5	2 1	0.72	12.1	40958. 63.
2437.798			0	35.7	1	"	"	41008.5 44.
34.731			0			"	"	60.2
34.605			0			"	"	62.3 91.
31.699		2431.70	1	32.9 31.7	2 1	"	"	41111.4
31.299		31.30	1	31.3	1	"	"	18.2
29.801			0			"	"	43.5
29.025			0			"	"	56.7 67.
27.997			0	28.4 28.0	1 2	"	"	64.0
27.386			0			"	12.2	84.4
27.280			0			"	"	86.2
26.907		26.90	1			"	"	92.6
26.297			0			"	"	41202.9
		25.06	1	25.1	2	"	"	23.9
24.820		24.82	1			"	"	28.0
24.655		24.67	1	24.7 24.2	1 2	"	"	30.7 39.
24.102			0			"	"	40.2
23.158			2	23.13	4	"	"	56.3
22.106			0			"	"	74.2
21.949			0			0.71	"	76.9
				21.7	1n	"	"	81.
21.268			0			"	"	88.5
				20.7	1	"	"	98.
20.137			0	20.2 19.8	1 1	"	"	41307.8 14.
18.618		18.61	1	18.6	1	"	"	33.8
18.457			0			"	"	36.5
18.081		18.07	1	18.1	1	"	"	43.0
				16.8	1	"	"	65.
15.436			0	15.5	1	"	"	88.2
14.639		14.63	1n	14.7	1	"	"	41401.9
14.198			0	14.1	1	"	"	09.4
14.042			0			"	"	12.1
11.992			0			"	12.3	47.2
11.536			1			"	"	55.0
10.282			0			"	"	76.6
				09.6	2n	"	"	88.
09.476			0			"	"	90.5
09.010			1			"	"	98.5
08.764		08.76	1			"	"	41502.8
06.053		06.06	1n			"	"	49.5
05.531		05.55	1			"	"	58.2
05.176			0			"	"	64.7
03.944		03.95	1			"	"	86.0
02.620			0			"	"	41608.9
02.328		02.31	1			"	"	14.1
01.219		01.23	1	01.2	2	"	"	33.1
2398.300			0			"	"	83.9

OSMIUM—*continued.*

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Inten- sity and Cha- racter	Wave- length	Inten- sity and Cha- racter	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
2397.730			0			0.71	12.4	41693.7
96.855		2396.88	1n			"	"	41708.7
95.969		95.99	1	2395.9	1	"	"	24.2
94.379		94.40	1	94.4	1	"	"	51.9
93.986			0			"	"	58.9
				92.6	1	"	"	83.
				91.9	1	"	"	95.
91.248			0			"	"	41806.8
87.378		87.37	1	87.4	1	"	"	74.6
				86.1	1	"	"	97.
84.715		84.71	1	84.7	1n	"	"	41921.4
				83.2	1n	"	12.5	48.
82.595			0			"	"	58.5
79.931		79.90	1n			"	"	42005.8
79.730		79.70	1n			"	"	09.3
79.482		79.46	1	79.5	1	"	"	13.6
78.842			0	78.9	1	"	"	24.8
				78.6	1	"	"	29.
77.704		77.66	1	77.7	1	"	"	45.3
77.128		77.11	1	77.2	2	"	"	55.2
76.398			0			"	"	68.0
				76.2	1	"	"	71.
				75.2	2	"	"	89.
				74.8	1	"	"	96.
				73.0	1n	0.70	"	42128.
				72.0	1	"	"	46.
71.270		71.27	1	71.3	1	"	"	59.0
70.796		70.79	1	70.7	1	"	"	67.4
69.346		69.34	1	69.3	1	"	"	93.3
67.434		67.46	1	67.40	6	"	12.6	42227.0
63.421			1			"	"	98.9
63.128			0			"	"	42304.2
62.855		62.85	1			"	"	09.1
62.498		62.50	1			"	"	15.5
				58.7	2	"	"	84.
				57.9	1	"	"	98.
57.344		57.35	1n			"	"	42408.0
56.999		57.00	1n			"	"	14.2
55.378			0	55.4	2	"	"	43.4
		53.10	1			"	12.7	84.4
51.826			0			"	"	42507.4
51.678			0			"	"	10.1
50.323			0	50.3	2	"	"	34.7
47.480		47.50	1			"	"	86.0
45.855			0			"	"	42615.7
43.831			1	43.9	1	"	"	52.5
42.043			0			"	"	85.1
40.732			0			"	12.8	42708.9
38.723			1			"	"	45.6
36.876		36.89	1n			"	"	79.2
34.640			1	33.0	1	"	"	42820.4
						"	"	50.
32.288			1			"	"	63.5
29.356			0			"	"	42917.5

OSMIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
2327·081 25·636			0			0·70	12·9	42959·4
			0			0·69	”	86·1
		2324·37	1n			”	”	43009·5
		24·07	1n			”	”	15·1
				2320·4	1	”	”	83·
				13·9	2	”	13·0	43204·
		08·40	1n			”	”	43307·1
				06·2	2	”	”	48·
				05·0	1	”	”	71·
				93·7	1	”	13·1	43585·
				88·2	1	”	13·2	43689·
				86·6	1n	”	”	43720·
				85·6	1n	”	”	39·
				85·0	1n	”	”	50·
		2283·76	1			”	”	74·2
				83·3	2	”	”	83·
		82·35	1	82·41	4	”	”	43801·
				79·2	1	”	”	62·
				77·4	1	0·68	”	97·
				72·6	2	”	13·3	43989·
				70·8	1	”	”	44024·
				58·5	1	”	13·4	44264·
				52·2	1	”	”	44388·
		50·97	1			”	13·5	44411·8
				04·5	2	0·67	13·8	45348·

RHODIUM.

Kayser, 'Abhandl. Königl. Akad. Wissensch. Berlin,' 1897.

Rowland and Tatnall, 'Astroph. Journ.,' iii. p. 286 (1896).

Exner and Haschek, 'Sitzber. kais. Akad. Wissensch. Wien,' civ. p. 960, cv. p. 561.

Snyder, 'Astrophysical Journal,' xiv. p. 179 (1901).

Exner and Haschek, 'Wellenlängen-Tabellen der Bogenspektren der Elemente,' Leipzig und Wien, 1904, p. 126.

Adeney, Photographs Ultra-violet Spark Spectra, 'Trans. Roy. Dublin Soc.' (2), vii. p. 331.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda} -$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
5983·830			4			1·63	4·5	16707·2
52·791			0			1·62	4·6	94·2
41·743			1			"	"	16825·5
18·698			1			1·61	"	91·0
07·478			1			"	"	16923·1
5899·128			1			"	"	47·1
71·947			1			1·60	"	17025·5

RHODIUM—*continued.*

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
5833.808			1n			1.59	4.7	17136.8
31.730			4			"	"	42.9
21.991			2			"	"	71.6
07.058			4			1.58	"	17215.7
03.482			2			"	"	26.3
5797.668			2			"	"	43.6
95.936			2			"	"	48.8
92.824			4			"	"	58.0
55.894			0			1.57	"	17368.8
42.985			0			"	"	17407.9
30.600			2			1.56	"	45.5
27.466			3			"	"	55.0
26.875			1n			"	"	56.8
18.038			0			"	4.8	83.8
13.799			1n			"	"	96.8
08.930			0n			"	"	17511.7
00.628			4n			1.55	"	37.1
5695.823			1			"	"	51.9
86.543			4			"	"	80.6
59.924			2n			1.54	"	17663.3
59.791			4			"	"	63.7
51.466			1n			"	"	89.7
34.847			2			"	"	17741.9
32.954			2			"	"	47.9
26.254			2			1.53	"	69.0
08.541			4			"	4.9	17825.0
07.898			3			"	"	27.1
05.214			0			"	"	35.6
5599.620			6n			"	"	53.5
95.043			2n			"	"	68.1
68.495			0			1.52	"	17953.3
57.364			1n			"	"	89.2
56.968			3			"	"	90.5
55.288			0			"	"	96.0
44.797			6b			1.51	"	18030.0
42.260			0			"	"	38.2
35.235			5n			"	"	61.2
34.074			1n			"	"	65.0
04.845			4n			1.50	5.0	18160.8
03.776			2n			"	"	64.3
5497.197			0			"	"	86.2
92.048			2n			"	"	18203.1
84.421			4n			"	"	28.5
81.602			2n			"	"	37.8
80.997			0			"	"	39.9
75.318			2n			1.49	"	58.8
71.040			5n			"	"	73.0
68.921			2n			"	"	80.1
68.288			3n			"	"	82.2
45.424			4n			"	"	18359.0
44.508			2n			"	"	62.1
41.547			4n			"	"	72.1
39.783			4			1.48	"	78.1
32.224			2n			"	"	18403.7

RHODIUM—*continued.*

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
5431·813			2n			1·48	5·0	18405·1
25·636			4n			"	"	26·0
24·910			4			"	"	28·5
23·483			2n			"	"	33·3
08·972			2			"	"	82·8
04·898			4n			"	"	96·7
5390·622			5			1·47	5·1	18545·6
84·214			0			"	"	67·7
81·683			0			"	"	76·4
79·275			5			"	"	84·8
69·470			1			"	"	18617·7
64·290			0			"	"	36·7
59·850			0			1·46	"	52·1
56·638			3			"	"	63·3
54·573			7			"	"	70·5
49·463			2			"	"	88·4
39·845			0			"	"	18722·0
36·794			0			"	"	32·7
31·237			2			"	"	52·3
29·890			4			"	"	57·0
29·571			0			"	"	58·1
14·911			3			1·45	"	18809·9
5292·279			4			"	5·2	90·3
80·250			2			1·44	"	18933·3
69·429			3			"	"	72·2
68·092			0			"	"	77·0
59·382			3			"	"	19008·4
51·549			2n			"	"	36·8
48·918			0			1·43	"	46·3
37·918			1			"	"	86·4
37·284			5			"	"	88·7
30·752			4			"	"	19112·5
25·706			1			"	"	31·0
22·783			4			"	"	41·7
14·913			3			"	"	70·6
13·491			2			"	"	75·8
12·866			4			1·42	"	78·1
11·637			4			"	"	82·6
07·099			3			"	5·3	96·0
03·468			2			"	"	19212·7
5197·697			1			"	"	34·0
93·276			7			"	"	50·4
87·088			0			"	"	73·3
85·172			1			"	"	80·5
84·342			4			"	"	83·6
78·311			0			"	"	19306·0
77·396			3			"	"	09·4
76·110			6			"	"	14·2
74·883			0			1·41	"	18·8
65·561			0			"	"	53·7
60·464			0n			"	"	72·8
57·814			5			"	"	82·8
57·224			2			"	"	85·0
55·691			5			"	"	90·7

RHODIUM—*continued.*

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda} -$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
5145.110			2			1.41	5.3	19430.6
30.903			2			1.40	"	84.5
20.824			1			"	"	19522.8
10.115			2			"	5.4	63.6
5090.795			5			1.39	"	19637.9
88.949			0			"	"	45.0
85.676			4			"	"	57.7
73.607			0			"	"	19704.4
64.475			4			"	"	40.0
57.576			2			1.38	"	66.9
46.583			2			"	"	19810.0
28.492			2			"	"	81.3
25.692			1			1.37	5.5	92.2
12.538			0			"	"	19944.5
4997.919			1			"	"	20002.8
96.012			0			"	"	10.5
85.107			2			1.36	"	54.2
77.969			4			"	"	83.0
66.511			2			"	"	20129.4
63.831			4			"	"	40.2
61.012			0			"	"	51.7
60.318			1			"	"	54.5
44.975			2			1.35	"	20217.1
22.633			2			"	5.6	20310.6
19.821			2			"	"	20.3
18.953			2			"	"	23.9
13.649			2			1.34	"	45.9
08.744			2			"	"	66.2
4898.022			1			"	"	20410.8
88.045			0			"	"	52.5
65.922			4			1.33	"	20545.5
61.808			0n			"	5.7	62.8
61.497			2n			"	"	64.1
56.614			0			"	"	84.8
51.777			6			"	"	20605.3
44.145			6			"	"	37.8
42.556			4			"	"	44.5
33.627			0			1.32	"	82.7
17.233			0			"	"	20753.1
13.678			1			"	"	68.4
10.645			6			"	"	81.5
03.393			0			1.31	"	20812.9
01.517			1n			"	"	21.0
4798.829			4			"	"	32.7
94.364			0			"	"	52.1
91.640			0			"	"	64.0
91.164			3			"	"	66.0
77.304			2			"	5.8	20926.5
71.687			2			"	"	51.1
70.938			3			"	"	54.4
55.717			4			1.30	"	21021.5
50.007			0			"	"	46.8
45.276			6			"	"	67.8
31.333			1n			"	"	21129.9

RHODIUM—*continued.*

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character			
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek		$\lambda +$	$\frac{1}{\lambda}$	
4724·483			2	See note, p. 155.		1·29	5·8	21160·6
21·148			6			"	"	75·5
19·545			2			"	"	82·7
07·108			1n			"	5·9	21238·6
04·230			5			"	"	51·6
4696·463			1			"	"	86·7
89·610			1		1·28	"	"	21317·8
83·093		4683·15	1n	4686·0	1n	"	"	34·
				83·0	1n	"	"	47·4
				81·7	1n	"	"	54·
77·532		77·55	1n	77·6	1n	"	"	72·9
75·187		75·20	10	75·2	2	"	"	83·6
66·261			2			"	"	21424·5
43·337		43·35	3			1·27	"	21530·3
39·526		39·53	2n	40·5	1n	"	"	48·0
34·017		34·05	1n			"	6·0	73·5
26·105		26·12	1n			"	"	21610·4
				20·2	1n	"	"	38·
20·059		20·07	3			"	"	38·7
08·294		08·30	4	08·3	2n	1·26	"	94·0
01·792		01·82	1			"	"	21724·6
4599·553		4599·6	1n			"	"	35·1
72·794		72·81	1	4572·7	1	1·25	"	21862·4
				72·5	1	"	"	64·
71·466		71·48	2	71·6	1	"	"	68·8
70·489		70·51	1n			"	"	73·4
69·181	4569·184	69·19	6	69·3	2	"	"	79·7
68·538		68·55	1			"	"	82·8
65·373		65·37	3	65·3	1	"	"	98·0
				63·0	1	"	6·1	21909·
61·062		61·08	3	61·0	1	"	"	18·8
58·897		58·90	3	58·9	1	"	"	29·0
57·343		57·35	2n	57·3	1n	"	"	36·5
51·828		51·83	4	51·8	1	"	"	63·1
		48·89	3	48·8	1	"	"	77·3
44·447		44·45	3	44·6	1	"	"	98·8
30·763		30·77	1	30·9	1	1·24	"	22065·2
28·904	28·901	28·91	9	29·0b	4	"	"	74·3
				25·5	1	"	"	91·
				08·0	1n	"	"	22177·
06·815		06·83	1	06·8	1n	"	"	82·5
03·955	03·955	03·96	3	04·1	1	1·23	"	96·6
4492·644	4492·643	4492·65	4	4492·7	5	"	6·2	22252·4
84·015		84·00	2	84·0	1	"	"	95·3
				78·3	1n	"	"	22324·
				48·5	1b	1·22	"	22473·
				43·5	1b	"	"	99·
33·495	33·489	33·50	3	33·6	1	"	"	22549·4
				26·6	1	1·21	6·3	84·
				26·3	1	"	"	86·
24·215	24·217	24·23	2	24·3	1	"	"	96·7
23·835	23·824	23·84	1			"	"	98·6
21·383		21·38	1n			"	"	22611·1
20·178		20·17	1n			"	"	17·2

RHODIUM—*continued.*

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
4410·449		4410·45	1n			1·21	6·3	22667·1
				4405·8	1n	"	"	91·
02·725	4402·716	02·74	1			"	"	22706·9
4388·224	4388·215	4388·24	2	4388·2	1	1·20	"	82·0
80·097	80·082	80·11	3	80·1	1n	"	"	22824·2
				79·2	1	"	"	29·
				77·0	1n	"	"	40·
76·350	76·347	76·35	1			"	"	43·8
				76·2	1	"	"	45·
74·976	74·981	75·00	10r	74·9b	8	"	"	50·9
73·212	73·212	73·22	6			"	"	60·2
				72·5	2	"	"	64·
				64·0	1n	"	6·4	22908·
62·393		62·40	1n			"	"	16·8
49·336	49·333	49·32	2			1·19	"	85·6
45·629	45·626	45·62	3			"	"	23005·2
45·247	45·245	45·25	2	45·3	1	"	"	07·
42·608	42·604	42·60	4			"	"	21·3
				42·5	1	"	"	22·
				39·5	1n	"	"	38·
36·181	36·176	36·19	1			"	"	55·4
				28·8	1b	"	"	95·
25·584	25·578		1			"	"	23111·9
				23·2	1b	"	"	25·
				20·0	1n	"	"	42·
				17·3	1n	1·18	"	56·
15·126	15·123	15·14	3	15·2	1	"	"	67·9
				13·6	1b	"	"	76·
				10·7	1	"	"	92·
08·982	08·988	08·99	2	09·0	1	"	6·5	23200·8
				00·7	1n	"	"	45·5
4296·926	4296·931	4296·93	5			"	"	65·9
				4296·8	4	"	"	67·
88·883	88·867	88·89	10r	88·8b	8	"	"	23309·6
				84·6	1n	"	"	33·
				82·0	1b	"	"	47·
				79·3	1n	1·17	"	62·
78·744	78·755	78·74	4	78·7	2	"	"	64·8
				78·2	1	"	"	68·
76·962	76·974	76·97	2	77·0	1	"	"	74·5
				76·5	1n	"	"	77·
				76·1	1n	"	"	79·
				74·8	1n	"	"	86·
73·578	73·581	73·59	4	73·5	2	"	"	93·1
				72·4	1	"	"	23400·
70·696		70·72	2	70·7	1	"	"	08·9
				69·7	1n	"	"	14·
				69·2	1	"	"	17·
				65·3	1n	"	"	39·
				64·5	1n	"	"	43·
				63·8	1n	"	"	47·
				62·3	1n	"	"	55·
	60·706			60·7	1 Fe	"	"	63·8
				60·1	1n	"	"	67·

RHODIUM—*continued.*

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	λ +	1 - λ	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
4258·608	4258·617	4258·62	1n	4259·7	1n	1·17	6·5	23469·
				59·3	1n	”	”	72·
				58·4	1n	”	”	75·3
				56·6	1n	”	”	76·
				56·3	1	”	”	86·
				52·7	1n	”	6·6	88·
				49·1	1	”	”	23508·
				48·0	1b	”	”	28·
				45·4	1n	”	”	34·
				44·7	2	”	”	48·
44·598	44·599	44·60	3			”	”	52·
				32·7	1n	1·16	”	52·7
				32·3	1n	”	”	23619·
30·354	30·358	30·36	2	30·3	1	”	”	21·
						”	”	32·1
28·002			0			”	”	45·2
				21·5	1	”	”	82·
	21·362		1			”	”	82·4
				21·2	1	”	”	83·
				20·0	1n	”	”	90·
18·142	18·153	18·15	1	18·2	1	”	”	23700·5
11·306	11·304	11·26	20r	11·4b	10	”	”	39·1
06·770	06·777	06·75	3	06·7	2	”	”	64·6
				04·1	1n	1·15	”	80·
4196·672	4196·661	4196·68	7	4196·6	6	”	6·7	23821·7
				95·7	1b	”	”	27·
				82·7	1	”	”	23901·
77·780	77·803	77·80	2	77·8	2	”	”	29·4
				75·8	2	”	”	41·
				71·5	1n	”	”	65·
				66·9	1n	1·14	”	92·
				66·2	1 Ir	”	”	96·
58·615	58·634	58·64	2			”	”	24039·7
				57·4	1	”	”	47·
54·495	54·521	54·52	4	54·5b	6	”	”	63·5
37·008	37·025	37·01	1	37·0	1	”	6·8	24165·2
35·448	35·445	35·45	13r	35·4b	6	”	”	73·4
				33·9	1	”	”	83·
29·080	29·054	29·06	10r	29·0b	8	1·13	”	24211·8
25·063	25·068	25·05	1	25·0	1	”	”	35·3
				22·7	1	”	”	49·
21·870	21·855	21·86	9r	21·7b	6	”	”	54·1
19·855	19·852	19·85	5	19·8	4	”	”	65·9
16·496	16·496	16·49	4	16·4	2	”	”	85·7
				13·6	1n	”	”	24303·
	07·665	07·65	4	07·5	2	”	”	38·0
4097·690	4097·692	4097·69	6	4097·7	6	”	6·9	97·1
				93·0	1n	1·12	”	24425·
				91·0	1	”	”	37·
88·646	88·651	88·64	2			”	”	51·1
87·950	87·948	87·94	2	88·0	2	”	”	55·3
				85·5	1	”	”	70·
				85·4	1	”	”	71·
84·442	84·450	84·45	2	84·5	1	”	”	76·2

RHODIUM--*continued.*

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek	Character			
4082.942	4082.949	4082.99	10	4083.0b	8	1.12	6.9	24485.1
81.961	81.975	81.98	2	82.0	1	"	"	91.1
80.690	80.699	80.70	1	80.9	1	"	"	98.8
77.739	77.748	77.74	4	77.8	2	"	"	24516.5
				61.0	1b	"	"	24618.
				59.5	1b	"	"	27.
56.491	56.503	56.50	2	56.5	2	"	"	44.9
53.602	53.603	53.60	2	53.7	2	1.11	"	62.5
49.188	49.200	49.17	2	49.2	2	"	7.0	89.3
48.572	48.571	48.56	3	48.6	2	"	"	93.1
				43.6	1n	"	"	24723.
				43.0	1n	"	"	27.
				40.3	1b	"	"	44.
				34.0	1	"	"	82.
				28.6	1	"	"	24816.
26.089		26.09	1	26.2	1n	"	"	31.5
23.302	23.301	23.29	4	23.3	6	"	"	48.2
				20.3	1	"	"	67.
				17.1	1	"	"	87.
				05.5	1n	1.10	"	24959.
				03.3	1n	"	7.1	72.
3996.313	3996.307	3996.31	6	3996.2	8	"	"	25016.0
95.768	95.766	95.77	5	95.7	6	"	"	19.4
				86.6	1n	"	"	77.
84.555	84.556	84.56	5	84.5b	6	"	"	89.8
76.240				76.3	1	"	"	25142.3
				76.1	1	"	"	43.
75.472	75.465	75.48	5	75.3b	6	1.09	"	47.1
				73.5	1n	"	"	60.
				69.3	1n	"	"	86.
68.320		68.33	2			"	"	92.4
64.688	64.688	64.68	3			"	"	25215.6
59.006	59.009	59.00	20r	59.0b	10b	"	"	57.8
58.313		58.31	4	58.3	4	"	"	56.2
53.214		53.20	1			"	7.2	88.7
				50.6	1b	"	"	25305.
		44.10	2			"	"	47.1
42.862		42.88	5	42.9b	6	"	"	55.0
	42.059		8			"	"	60.2
				40.6	1	"	"	70.
				39.8	2	"	"	75.
				38.7	1	"	"	82.
		38.05	1	38.0	1	"	"	86.1
35.982	35.983	35.99	6	35.9b	4	1.08	"	99.4
35.123	35.120	35.11	4	35.1	2	"	"	25405.3
34.384	34.368	34.39	15r	34.3c	8	"	"	09.8
				29.5	1n	"	"	41.
				26.6	1	"	"	60.
				26.2	1	"	"	63.
				25.1	1	"	"	70.
				24.7	1	"	"	72.
22.340	22.337	22.34	5	22.4	4	"	"	87.8
		16.55	1			"	"	25525.7
				15.8	1	"	"	30.

RHODIUM—*continued.*

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
3913·657 12·971	3913·648 12·964	3913·64 12·98	4 2	3914·3''	1	1·08	7·2	25540·
				13·7	1n	"	"	44·4
				13·0	1	"	"	48·9
				12·6	1	"	"	51·
				11·7	1	"	"	57·
				11·2	1	"	"	60·
				10·6	1	"	"	64·
				10·0	1	"	"	68·
				08·6	1	"	7·3	77·
				08·3	1	"	"	79·
				07·6	1	"	"	84·
				07·0	1n	"	"	88·
				06·2	1	"	"	93·
				05·5	1	"	"	98·
05·423		05·41	1			"	"	98·2
				05·1	1	"	"	25600·
04·362	04·359	04·35 02·66	2 1	04·5	2	"	"	04·
				03·0	1	"	"	05·2
				02·3	1	"	"	14·
				02·1	1	"	"	16·2
				01·5	1	"	"	19·
				01·1	1	"	"	20·
				00·2	1	"	"	24·
				3899·0	1	"	"	26·
				98·6	1	"	"	32·
				98·1	1	"	"	40·
				97·8	1	"	"	43·
				97·3	1	"	"	46·0
				96·8	1	1·07	"	48·
				96·1	1	"	"	51·
94·8	1n	"	"	55·				
93·8	1n	"	"	59·				
92·0	1n	"	"	68·				
90·5	1	"	"	75·				
89·6	1n	"	"	86·7				
89·1	1n	"	"	96·				
88·475	3886·470	88·48	2 3	88·5	2	"	"	25702·
87·5				1	"	"	06·	
86·0				1n	"	"	09·7	
84·3				1b	"	"	16·	
83·2				1b	"	"	23·0	
82·4				1n	"	"	26·	
81·0				1	"	"	37·	
80·2				1	"	"	45·	
77·9				1	"	"	50·	
77·4b				4	"	"	59·	
76·6				1	"	"	65·	
74·8				1	"	"	80·	
72·5				2	"	"	82·7	
70·4b				2	"	"	88·	
70·2	6	"	"	25800·				
77·470	77·482	77·47	4			"	"	15·5
72·534	72·532	72·57	3			"	"	30·
70·140	70·151	70·16	5			"	"	31·5

RHODIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character			
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek		$\lambda +$	$\frac{1}{\lambda}$	
3865.291			1	3869.2	1	1.07	7.3	25838.63.9
				63.7	1	"	"	75.
56.663	3856.654	3856.62	20r	56.7b	10	1.06	"	25922.0
56.167	56.165	56.15	4	56.3	2	"	"	25.2
		54.81	3	54.8	2	"	"	34.3
				53.5	1n	"	"	43.
				52.7	1n	"	"	49.
		49.14	2	49.2	2	"	"	72.5
		44.55	1			"	"	26003.5
				44.0	1b	"	"	07.
				41.3	1	"	"	26.
				40.6	1	"	"	30.
				40.3	1	"	"	32.
				38.9	1b	"	"	42.
34.893	34.895	34.89	3	35.0	2	"	"	69.1
34.016	34.020	34.03	15r	34.1b	6	"	"	75.0
33.733			0			"	"	76.9
		29.17	1			"	"	26108.0
28.623	28.615	28.61		28.7b	6	"	"	11.8
27.505			15r			"	"	19.4
			0	24.8	1	"	"	38.
22.397	22.399	22.43	15r	22.5b	6	"	"	54.2
		18.90	1			"	"	78.2
18.345	18.339	18.34	4	18.4b	8	"	"	82.1
17.990			0	18.0	1n	"	7.4	84.4
17.524			0			"	"	87.6
16.611	16.611	16.62	4	16.7b	6	1.05	"	93.8
15.169	15.166	15.18	3	15.2b	4	"	"	26203.7
12.599	12.603	12.61	3	12.7	1	"	"	21.4
				11.9	1	"	"	26.
09.655	09.648	09.65	3	09.7	2	"	"	41.7
06.920	06.908	06.91	4	06.9c	4	"	"	60.6
06.071	06.070	06.08	4	06.1b	4	"	"	66.4
3799.466	3799.461*	99.46	7r	3799.6	10	"	"	26312.1
				98.3	1	"	"	20.
				95.0	1	"	"	43.
93.366	93.364	93.40	4r	93.3b	8	"	"	54.4
		92.33	4	92.4	4	"	"	61.6
				91.6	1	"	"	67.
		90.58	1			"	"	73.8
				89.8	1	"	"	79.
88.633	88.624	88.64	6	88.7b	6	"	"	87.4
				86.0	2	"	"	26406.
				85.4	1n	"	"	10.
				81.0	1n	"	"	41.
				80.0	1n	"	"	48.
78.279	78.279	78.28	4	78.3b	4	"	"	59.7
				77.0	1	"	"	69.
75.864		75.85	2	76.0	2	1.04	"	76.6
				72.8	1	"	7.5	98.
71.779		71.77	2	71.8	2	"	"	26505.2
70.130	70.125	70.13	5	70.1b	2	"	"	16.8

* Distinct from Ru 3799.469.

RHODIUM—*continued.*

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character			
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek		$\lambda +$	$\frac{1}{\lambda}$	
				3768·8	1	1·04	7·5	26526·
				67·2	1	"	"	37·
3765·232	3765·227	3765·24	8r	65·2b	10	"	"	51·3
				60·9	1	"	"	82·
60·554	60·559	60·55	2	60·6	2	"	"	84·3
				59·6	1	"	"	91·
				57·3	1n	"	"	26607·
55·748	55·736	55·73	2	55·7	2	"	"	18·4
55·290			1			"	"	21·6
54·441	54·431	54·44	5			"	"	27·7
54·269	54·268	54·26	5	54·3b	6	"	"	28·8
				50·6	1	"	"	55·
48·383	48·362	48·37	6	48·4c	8	"	"	70·8
				46·1	1	"	"	87·
				45·7	1	"	"	90·
44·325	44·325	44·32	4	44·2b	8	"	"	99·6
37·448	37·421	37·43	4			1·03	"	26700·
				37·3b	6	"	"	48·8
	36·295	36·00	4			"	"	50·
35·429	35·429	35·44	6	35·4b	8	"	"	58·0
						"	"	63·1
				35·0	1	"	"	66·
		34·34	1			"	"	71·0
				33·4	1n	"	"	78·
				31·6	1	"	"	90·7
				26·8	1	"	7·6	26825·
25·091		25·10	2	25·1	1	"	"	37·4
				22·3	1n	"	"	58·
		20·91	1			"	"	67·6
				17·2	1	"	"	94·
				15·3	1	"	"	26908·
14·989	14·975	14·99	4	15·0	2	"	"	10·4
		13·98	1	14·0	1	"	"	17·7
13·593	13·575	13·60	3	13·6	4	"	"	20·4
13·156	13·172	13·18	4r	13·1c	8	"	"	23·6
	09·773		2	09·8	1	"	"	48·2
				08·6	1	"	"	57·
				07·1	1	"	"	68·
				05·2	1	"	"	81·
				04·5	1	"	"	87·
				02·7	1n	"	"	27000·
01·057	01·056	01·07	20r	01·1b	8	"	"	11·7
				00·3	1	"	"	17·
3699·461	3699·458	3699·46	2	3699·5b	2	"	"	23·4
98·758	98·742	98·76	5	98·7	4	"	"	28·5
98·415	98·410	98·40	3	98·4	4	"	"	31·0
		96·24	1			1·02	"	46·9
95·674	95·669	95·65	5	95·7b	6	"	"	51·1
95·105	95·099	95·10	2	95·1	2	"	"	55·3
				94·3	1	"	"	61·
92·506	92·502	92·51	25r	92·5	10	"	"	74·3
				91·6	2	"	"	81·
91·481	91·477	91·50	2			"	"	81·7
90·872	90·853	90·88	8r	90·9b	8	"	"	86·3

RHODIUM—*continued.*

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda} -$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
				3619.1	1	1.01	7.8	27623.
				16.6	1n	1.00	"	42.
				15.2b	1	"	"	53.
3614.934	3614.931	3614.93	4	14.8	8	"	"	55.2
14.674		14.67	1			"	"	56.
14.099			1			"	"	57.2
				13.9	1n	"	"	61.6
12.621	12.618	12.62	6r			"	"	63.
				12.5	8	"	"	72.9
		10.93	1n			"	"	74.
				09.0	1n	"	"	85.9
				08.5	1	"	"	27701.
08.246	08.243	08.25	4	08.2	2	"	"	05.
				07.9	1	"	"	06.5
06.029	06.019	06.05	6			"	"	09.
				05.8c	6	"	"	23.5
				03.0	1n	"	"	25.
	02.182		2			"	"	47.
00.911		00.90	4			"	"	53.1
				00.6	1n	"	"	63.0
3598.057	3598.051	3598.05	4	3598.0	2	"	"	65.
97.300	97.294	97.31	12r	97.3b	8	"	"	85.0
96.343		96.32	4r	96.3b	10	"	"	90.8
96.183	96.185		4			"	"	98.3
				95.5	1b	"	"	99.4
				94.8	1	"	7.9	27805.
94.054		94.07	0			"	"	10.
93.685		93.70	3	93.7	2	"	"	15.8
				93.0	1	"	"	18.7
90.688	90.678	90.65	1	90.6	2	"	"	24.
				85.8	2	"	"	42.0
				85.0	1	"	"	80.
	83.683	83.67	4	83.6b	4	"	"	86.
	83.252	83.24	20r			"	"	96.4
				83.1	6	"	"	99.8
				80.8	1	"	"	27901.
		80.41	1	80.5	1	"	"	19.
				79.7	1n	"	"	21.9
				78.6	1	"	"	27.
				77.0	1	0.99	"	36.
				76.6	1	"	"	48.
				76.2"	1	"	"	52.
				75.7	1	"	"	55.
				75.4	1	"	"	59.
				74.0	1	"	"	61.
				73.4	1	"	"	72.
				72.5	1	"	"	77.
				72.1	1	"	"	84.
				71.8	1	"	"	87.
				71.0	2	"	"	89.
	70.333		10	70.3	8	"	"	95.
				69.2	1	"	"	28000.7
				68.9	1	"	"	10.
						"	"	12.

RHODIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo				
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$					
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek								
3564.290	3564.282	3564.31	3	3568.6	1	0.99	7.9	28014.				
				68.3	1	"	"	17.				
				67.1	1n	"	"	26.				
				66.3	1	"	"	32.				
				64.2	2	"	"	48.2				
				62.2	2	"	"	58.				
		60.53	1	63.0	1n	"	"	65.				
				61.8	1n	"	"	68.				
						"	"	77.8				
				60.3	1	"	"	80.				
				60.1	1	"	"	81.				
				59.2	1	"	"	88.				
				59.0	1	"	"	90.				
				58.6	1	"	"	93.				
				58.0'	1	"	"	98.				
				57.5	1	"	"	28102.				
				57.2	1	"	"	04.				
				56.8	1n	"	"	07.				
50.165	50.145	50.15	1	53.9	1	"	"	30.				
				53.6	1	"	"	33.				
				53.1	1	"	"	37.				
				52.8	1	"	"	39.				
				51.8	1	"	8.0	47.				
				50.4	1b	"	"	58.				
		38.269	38.293	38.27	3	50.0	1	"	"	59.8		
						49.6c	10	"	"	61.		
								"	"	63.5		
						43.9	8	"	"	28207.8		
						41.9	4	"	"	09.		
								"	"	24.2		
				25.805	25.808	25.80	2	37.3	1	0.98	"	25.
								36.6	1	"	"	53.3
								36.4	1	"	"	54.4
								34.3	1n	"	"	62.
								32.3	1	"	"	68.
								30.6	1	"	"	69.
28.183	28.177	28.18	15r	28.1b	10	"	"	86.				
						"	"	28302.				
						"	"	16.3				
						"	"	35.2				
						"	"	54.3				
						"	"	55.				
		19.690	19.692	19.67	2	22.5	2	"	"	81.		
						20.9	1	"	"	94.		
						19.6	2	"	"	28403.6		
						17.7	1	"	"	20.		
						17.3	1	"	"	23.		
						16.8	1	"	"	27.		
13.258	13.258	13.25	4	14.8	1	"	"	43.				
				13.7	4	"	"	52.				
				13.2	4	"	"	55.6				
				11.9	2	"	"	66.3				
				11.6	2	"	"	68.3				
				10.7	1	"	8.1	76.				

RHODIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda} -$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
3509·444			3			0·98	8·1	28486·4
08·754		3508·65	1			"	"	92·5
07·471	3507·466	07·48	8r	3507·4b	8	"	"	28502·5
05·559	05·558	05·55	4	05·5	2	"	"	18·0
02·686	02·674	02·67	15r	02·6a	10	"	"	41·5
		00·70	1	00·7	1	"	"	57·6
				3499·3	1	"	"	69·
3498·887	3498·878	3498·88	15	98·8b	8	0·97	"	72·4
				96·6	1	"	"	91·
				96·0	1	"	"	96·
94·585	94·591	94·58	5	94·5	2	"	"	28607·6
91·365	91·353	91·35	3			"	"	34·1
91·216	91·218	91·21	3	91·2''	2	"	"	35·2
				90·6	1	"	"	40·
				90·3	1	"	"	43·
		89·81	1			"	"	46·8
87·621	87·609	87·61	3			"	"	64·8
				87·5	1	"	"	66·
87·366	87·363	87·36	3			"	"	66·9
				87·2	1	"	"	68·
85·031			2			"	"	86·0
84·186	84·184	84·19	4			"	"	93·0
				84·0	4	"	"	95·
		83·20	0			"	"	28701·1
		81·33	2			"	"	16·5
80·658			0			"	"	22·1
79·064	79·053	79·07	10r	79·0b	2	"	"	35·3
78·646	78·640	78·65	2			"	"	38·7
		77·96	1	77·9b	8	"	"	44·4
77·354			1			"	"	49·4
74·939	74·920	74·95	10r	74·9a	8	"	"	69·4
		73·93	1			"	"	77·7
				73·8	1	"	"	79·
72·994			0			"	"	85·5
72·402	72·393	72·40	5	72·3	4	"	"	90·4
		71·46	2			"	"	98·2
70·817	70·805	70·82	10r			"	8·2	28803·5
				70·6b	8	"	"	05·
70·515			1			"	"	06·0
69·774	69·770	69·80	6	69·7	5 Ni	"	"	12·0
69·355			0			"	"	15·6
				64·9	1	"	"	53·
62·191	62·184	62·19	12r	62·2a	8	"	"	75·3
59·375		59·36	3	59·3	1	"	"	98·7
58·815			0			0·96	"	28903·4
58·070	58·072	58·07	3	58·1	4	"	"	09·7
57·219	57·216	57·21	5	57·2	4	"	"	16·8
56·284			0			"	"	24·6
55·595	55·571	55·57	4	55·5	1	"	"	30·5
55·369	55·365	55·36	4	55·4	4	"	"	32·3
54·617			0			"	"	38·6
				52·7	2	"	"	55·
51·294	51·298	51·30	4			"	"	66·4

RHODIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
3385·919	3385·924	3385·92	6	3386·0	4	0·95	8·4	29525·7
				82·6	1	"	"	55·
				81·7	2	"	"	63·
81·578	81·589	81·60	4			"	"	63·5
81·208			0			"	"	66·8
				81·0	1	"	"	69·
80·775		80·80	4			"	"	70·6
				78·7	1	"	"	89·
77·850	77·856	77·81	4	77·8	2	0·94	"	96·3
77·742			2			"	"	97·2
77·275	77·282	77·28	5	77·2	4	"	"	29601·2
				76·5	1	"	"	08·
76·017			0			"	"	12·3
75·735			0 _n			"	"	14·8
73·879			0			"	"	31·1
72·930			0			"	"	39·4
72·672	72·668	72·68	2			"	"	41·7
72·379			7	72·4 _c	2	"	"	44·2
				71·6	1	"	"	51·
				71·3	1	"	"	54·
				70·9	1	"	"	57·
				70·6	1	"	"	60·
				70·2	1	"	"	63·
69·824		69·82	5	69·8	2	"	"	66·7
68·914	68·918	68·91	3			"	"	74·8
				68·8	1	"	"	76·
68·518		68·52	6	68·5	6	"	"	78·2
				66·9	1 _n	"	"	93·
65·650			0			"	"	29703·5
65·138			0	65·1	1	"	"	08·1
64·281			0	64·3	1	"	"	15·6
				63·7	1	"	"	21·
63·382			0			"	"	23·6
62·321	62·330	62·33	5	62·4	2	"	"	32·9
60·952	60·947	60·95	8	61·0	6	"	8·5	45·0
60·043	60·038	60·04	6	60·0	4	"	"	53·0
58·962			0			"	"	62·6
57·980		58·00	2			"	"	71·4
57·560			0			"	"	75·0
56·670			1	56·7	1	"	"	82·9
				56·3	2	"	"	86·
				56·0	1	"	"	89·
				55·5	1	"	"	93·
54·853		54·85	4			"	"	99·1
				54·7	1	"	"	29800·
				54·5	1	"	"	02·
				54·1	1	"	"	06·
53·834		53·84	2			"	"	08·1
				53·7	1	"	"	09·
				53·6	1	"	"	10·
				53·2	1	"	"	14·
				52·8	1	"	"	17·
52·510		52·52	2			"	"	19·9
				52·3	1	"	"	22·

RHODIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo	
Wave-length			Inten- sity and Cha- racter	Wave- length	Inten- sity and Cha- racter				
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek		$\lambda +$	$\frac{1}{\lambda} -$		
3347.660 47.437	3346.071 45.707 45.156	3344.34 43.55	0 1 1 4 10	3352.0	1	0.94	8.5	29824.	
				51.6	1	"	"	28.	
				51.2	1	"	"	31.5	
				51.1	1	"	"	32.5	
				50.7	1	"	"	36.	
				50.5	1	"	"	38.	
				50.1	1	"	"	41.	
				49.8	1	"	"	44.	
				49.6	1	"	"	46.	
				49.1	1	"	"	50.	
				49.0	1	"	"	51.	
				48.4	1	"	"	57.	
				48.1	1	"	"	59.	
				47.8	1	"	"	62.	
				47.1	1	"	"	63.3	
				46.9	1	"	"	65.1	
	46.7	1	"	"	70.				
	46.2	ln	"	"	72.				
	46.1	1	"	"	76.				
	44.337 43.573 43.036 40.987 38.672 36.842 35.328 32.648 31.393 31.233 23.232 16.670 14.665 09.663 08.067 07.474 07.091 05.298 04.258	44.340	3344.34 43.55	5 2 5 0 7 0 0 1 4 4 6r 0 2 2 3 0 1 4 2	44.5	2	"	"	77.3
					43.2	2	"	"	80.5
					42.6	1	"	"	85.5
					42.0	1	"	"	91.
					41.2	1	"	"	92.8
					40.8	ln	"	"	99.7
					38.7	4	0.93	"	29903.
					36.9	4	"	"	04.4
					31.4	2	"	"	08.
26.0					1	"	"	14.	
23.3b					8	"	"	21.	
20.0					1	"	"	22.8	
18.5	1	"	"	24.					
14.7	ln	"	"	43.4					
13.2	ln	"	"	59.9					
10.7	ln	"	"	73.6					
09.7	ln	"	"	97.6					
08.2	1	"	"	30008.9					
07.5c	4	"	"	10.3					
05.5	1	"	"	58.					
05.3	1	"	"	82.6					
04.2	1	"	"	30112.					

RHODIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda} -$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
3303·872			0			0·93	8·6	30258·9
03·474		3303·49	0			"	"	62·5
	3303·068					"	"	66·3
	02·712		4	3302·7	1	"	"	69·5
01·820		02·49	5			"	"	71·6
		01·80	0			"	"	77·8
				01·5	1	"	"	81·
		01·40				"	"	81·6
00·604	00·593	00·56	4	00·5	1	"	"	89·0
00·479			4			"	"	90·0
00·133			0			"	"	93·2
3299·066		3299·06	2			0·92	"	30303·0
				3298·5	1	"	"	08·
				98·3	1	"	"	10·
97·667			0			"	"	15·9
97·409		97·41	2	97·5	1	"	"	18·2
96·847	3296·842	96·86	4	96·8	2	"	"	23·4
				95·7	1	"	"	34·
94·843			0			"	"	41·9
94·400	94·404	94·42	5	94·5	4	"	"	45·9
				93·8	1	"	"	51·
93·533			0			"	"	53·9
93·012			0			"	"	58·7
				92·9	1n	"	"	60·
92·531			0			"	"	63·2
				92·3	1n	"	"	65·
				91·6	1	"	"	72·
				89·9	2	"	"	87·
89·739	89·750	89·73	5			"	"	88·9
				89·4	4	"	"	92·
89·274	89·266	89·26	5			"	"	93·3
88·159		88·16	2			"	8·7	30403·4
				86·7	1	"	"	17·
86·520		86·54	4			"	"	18·5
85·964		85·99	2			"	"	23·6
84·151			0			"	"	40·6
83·705	83·695	83·71	4r	83·7b	6	"	"	44·7
82·932			0			"	"	52·0
	82·455		5	82·0	4	"	"	56·3
81·827	81·822	81·83	4			"	"	62·1
				80·8a	8	"	"	72·
80·680	80·664	80·68	2r			"	"	72·8
78·620		78·60	2			"	"	92·0
				77·0''	1	"	"	30507·
76·122		76·11	4			"	"	15·2
				75·1	1	"	"	25·
74·908		74·90	4			"	"	26·5
				74·3	2	"	"	32·
		73·47	1			"	"	39·9
				73·2	1	"	"	42·
				71·9	4	"	"	54·
71·748	71·736	71·75	8			"	"	56·0
70·702		70·72	3	70·7b	1	"	"	65·7
				69·9	1	"	"	73·

RHODIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	λ +	1 - λ	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
				3231.3	4	0.91	8.8	30938.
				29.5	1	"	"	56.
				29.0	1	"	"	61.
				25.4	1	"	"	95.
				24.7	2	"	"	31002.
3221.589			0	21.5	1	"	"	31.8
21.422			1			"	"	33.4
21.193			0			"	"	35.6
				21.0	2	"	"	37.
20.893			2			"	"	38.5
18.655			0			0.90	"	60.1
				18.5	2	"	"	62.
		3218.40	3			"	"	62.5
18.009		18.00	4	18.1	2	"	"	66.3
				17.5	1	"	"	71.
				17.0	1	"	"	76.
				16.5	1n	"	"	81.
				15.1	1	"	8.9	94.
14.984		15.00	4			"	"	95.4
14.628			0	14.6	1	"	"	98.9
14.440	3214.440	14.44	4			"	"	31100.7
				13.8	1	"	"	07.
				13.1	2	"	"	14.
12.667			0			"	"	17.9
				11.7	1	"	"	27.
11.504		11.52	3			"	"	29.1
				10.7	1n	"	"	37.
				09.6	1n	"	"	48.
07.390		07.41	2	07.4	6	"	"	69.0
06.202		06.21	4	06.3	1	"	"	80.6
				05.3	1n	"	"	89.
				02.0	1	"	"	31222.
				01.7	1n	"	"	25.
3199.979		3199.99	1			"	"	41.2
97.257	3197.248	97.26	4	3197.2	4	"	"	67.9
94.671	94.660	94.69	4	94.6	1	"	"	93.2
93.963		93.96	2	94.0	1	"	"	31300.2
93.633			1			"	"	03.4
92.336			0			"	"	16.1
92.112			0			"	"	18.3
91.313	91.305	91.33	6			"	"	26.1
				91.2b	4	"	"	27.
90.466		90.49	3	90.5	1	"	"	34.4
				90.1	1	"	"	38.
89.162	89.164	89.16	5	89.2	2	"	"	47.3
				88.7	4	"	"	52.
88.408		88.41	1			"	"	54.7
87.998		88.00	1	88.0b	6	"	"	58.7
87.740			0			"	"	61.3
87.265			0			"	"	66.0
85.702	85.710	85.72	5	85.6	2	"	"	81.3
				84.7	1n	"	"	82.
84.485			0			"	"	91.
83.558			0			"	"	31402.5

RHODIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo	
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$		
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek					
3183·012	3179·843	3181·38	0	3181·3	1	0·90	8·9	31407·9	
82·519			0			0·89	„	12·8	
81·330			3			„	„	24·2	
79·833			5			80·5	1	9·0	33·
78·517			4			80·0	2	„	39·2
						78·6	1	„	52·2
						77·7	1	„	60·
						77·3	1	„	64·
77·201			77·20			4		„	65·2
77·020						0		„	67·0
76·666		0		„	70·6				
				76·3	1	„	„	74·	
				74·6	4	„	„	91·	
				73·7	2	„	„	31500·	
72·392		72·40	4	72·4	1	„	„	12·9	
71·625		71·65	2	71·5	1n	„	„	20·4	
70·379			0			„	„	33·0	
				69·0	1	„	„	47·	
67·072		67·07	0	67·1	2	„	„	66·5	
				66·4	1	„	„	73·	
				64·3	2	„	„	94·	
63·551		63·55	1			„	„	31601·1	
		62·84	0			„	„	08·1	
62·608			0			„	„	10·5	
				62·5	2	„	„	12·	
62·388		62·40	1			„	„	12·6	
59·354		59·35	2	59·3b	8	„	„	43·1	
59·001			2			„	„	56·5	
58·063	55·890	58·06	2	58·0	1n	„	„	56·0	
		55·90		55·8	2	„	„	77·7	
55·489			6			„	„	81·8	
54·453			0			„	„	92·2	
				53·7	2	„	„	31700·	
52·724	52·719	52·73	6			„	„	09·6	
				52·6	2	„	„	11·	
		51·50	4	51·5	2	„	„	21·9	
				50·7	1	„	„	30·	
50·385		50·40	4	50·3	1	„	„	33·1	
49·978			0	49·9	2	„	„	37·2	
48·350			1			„	„	53·7	
				48·0''	1n	„	„	57·	
47·736		47·74	4			„	„	59·8	
47·274			0	47·2	1n	„	„	64·5	
46·327			0			„	9·1	74·0	
45·734		45·71	2n	45·7	1	„	„	80·1	
45·518			1			„	„	82·2	
41·314			0	41·3b	4	0·88	„	31824·7	
40·963			0			„	„	28·3	
40·549			1			„	„	32·5	
				40·4	1	„	„	34·	
40·355			0			„	„	34·4	
				38·7	1n	„	„	51·	
38·506		38·50	1			„	„	53·2	

RHODIUM—*continued.*

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	λ +	1 — λ	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
3137·825	3137·824	3137·83	5	3137·6	1	0·88	9·1	31860·1
37·450		37·45	4			62·		
35·590		35·59	2n			63·9		
34·710			0			82·8		
34·047			1			91·8		
30·918		30·91	4	31·0	2	”	”	98·5
				30·0	1n	”	”	31930·5
				29·2	1n	”	”	40·
				28·5	1b	”	”	48·
26·990		27·00	2			”	”	55·
				26·2	1	”	”	70·5
25·000			0			”	”	79·
				24·6	1n	”	”	90·9
24·508		24·50	2			”	”	95·
23·818	23·814	23·81	6	23·8	4	”	”	96·0
				23·1	1	”	”	32003·1
21·879	21·873	21·89	6			”	”	10·
21·381			0			”	”	23·0
				21·2	2	”	”	28·0
20·714			0			”	”	30·
				20·0	1	”	”	34·8
19·846			0			”	”	42·
				18·2	4	”	”	43·8
				17·7	1	”	”	61·
				16·6	1n	”	”	66·
				15·2	2	”	”	77·
15·027	15·026	15·02	5			”	”	92·
				12·4	1b	”	9·2	93·4
				10·6	1n	”	”	32120·
				09·0	2	”	”	39·
08·405		08·40	2			”	”	55·
				06·1	1n	”	”	61·7
05·756			4			”	”	86·
05·110		05·11	4	05·2	1	”	”	89·1
				03·5	2	”	”	95·8
02·634		02·65	4	02·7	1	”	”	32212·
	00·556			00·6	1	0·87	”	21·4
	00·407		2			”	”	43·
			2			”	”	43·1
			2			”	”	44·6
3099·567			0			”	”	53·4
		3097·06	2n	3097·0	4	”	”	79·5
96·834			1			”	”	81·8
96·722			0			”	”	83·0
				95·6	1n	”	”	95·
94·691		94·69	2			”	”	32304·2
				93·7	6	”	”	15·
93·592		93·58	0			”	”	15·7
				92·5	2	”	”	27·
91·840			0			”	”	34·0
				90·8	4	”	”	45·
90·506		90·52	2			”	”	47·9
89·775			0			”	”	55·6
89·480			0			”	”	58·7

RHODIUM—*continued.*

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
3088.428		3088.42	2			0.87	9.2	32369.8
				3087.7	1	"	"	77.
87.534		87.52	4			"	"	79.2
87.180			0			"	"	82.8
				86.0	1n	"	"	95.
85.790		85.78	2			"	"	97.5
84.078	3084.081	84.10	4	84.2	4	"	"	32415.3
				83.5	1	"	9.3	21.
81.714			0	81.8	2	"	"	40.2
80.449			0			"	"	53.5
78.905			0			"	"	69.8
				78.5	1n	"	"	74.
				77.0	1	"	"	90.
76.736		76.75	2			"	"	92.6
	76.006		6			"	"	32500.4
				75.8	1	"	"	03.
74.806		74.82	2			"	"	13.0
				74.4	1	"	"	17.
				74.0	1	"	"	22.
73.550			0			"	"	26.4
				72.4	1n	"	"	39.
71.716			1			"	"	45.8
				71.3	1	"	"	50.
71.134		71.15	3			"	"	51.9
70.467			1			"	"	59.0
				69.9	1	"	"	65.
69.034			2			"	"	74.2
67.395		67.42	6	67.5	2	"	"	92.
66.475			0			"	"	32601.4
66.333			0			"	"	02.9
65.800			0			"	"	08.6
				64.5	1n	"	"	22.
				63.9	1n	"	"	29.
63.700			1			"	"	31.0
62.544			0	62.5	4	0.86	"	43.3
61.782		61.80	2			"	"	51.3
60.001			0			"	"	70.4
				59.9	2	"	"	72.
59.473		59.47	2			"	"	76.1
58.974			1			"	"	81.4
				58.2	1	"	"	90.
57.996		58.01	4			"	"	91.8
				57.5	1	"	"	97.
56.452			0			"	"	32708.4
55.755		55.76	0	55.8	6	"	"	16.
54.980			0			"	"	24.1
				54.2	1n	"	9.4	32.
53.988		54.01	2			"	"	34.5
				52.7	1	"	"	48.
51.780		51.83	2			"	"	58.1
50.842		50.92	2n			"	"	68.0
50.050			0			"	"	76.9
49.919			0			"	"	78.3
				49.6	1	"	"	82.

RHODIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
3049.334		3049.35	2			0.86	9.4	32784.6
49.003		49.00	0	3049.1	6	"	"	87.
48.095		48.10	2			"	"	88.2
47.440		47.45	0			"	"	97.9
		47.26	1	47.3c	6	"	"	32805.0
46.871		46.87	4			"	"	07.0
46.304		46.30	2	46.3	1	"	"	11.1
				46.0	1	"	"	17.3
45.887		45.90	3			"	"	21.7
43.586			0			"	"	21.7
				42.9	2	"	"	46.6
				41.8	1n	"	"	54.
				40.6	1n	"	"	66.
38.583			2n	38.6	1	"	"	79.
				37.6	2	"	"	32900.7
36.483			0			"	"	11.
		35.15	1	35.2	4	"	"	23.4
34.474			0			"	"	37.9
				34.3	1n	"	"	45.2
				33.0	1n	"	"	47.
31.573			0			"	"	61.
				29.6	1	"	"	76.8
28.975			0			"	"	98.
				28.8''	2	"	9.5	33005.1
28.545		28.57	4			"	"	07.
27.817		27.82	1			"	"	09.5
				27.1	1n	"	"	17.6
27.053		27.05	2			"	"	25.
				26.0	1	"	"	26.0
25.517		25.54	2			"	"	37.
				25.3	2	"	"	42.6
				24.6	1	"	"	45.
24.018	3024.019	24.06	3.			"	"	53.
23.164			0			"	"	58.9
22.673			0			"	"	68.4
22.117			0			0.85	"	73.8
				21.2	1	"	"	79.9
				20.8	1	"	"	90.
		20.60				"	"	94.
19.928		19.95	0	20.0	6	"	"	96.5
19.664		19.62''	2			"	"	33103.7
19.569			2			"	"	07.1
18.194			0			"	"	07.8
17.225			1	17.2	2	"	"	22.9
16.930			1n			"	"	33.5
15.960			0			"	"	36.8
				15.0	1	"	"	47.4
14.352		14.37	2			"	"	58.
				11.8	1	"	"	65.0
11.021			0			"	"	93.
				10.5	1n	"	"	33201.8
10.369			0			"	"	08.
				09.7	4	"	"	09.0
						"	"	16.

RHODIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo	
Wave-length			Intensity and Character	Wave-length	Intensity and Character	λ +	1 - λ		
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek					
3009·103	3004·555	3009·10 07·38	1 1	3009·1c	6	0·85	9·5	33223·0 42·0	
				06·6	1	"	"	51·	
05·929			05·91	2	06·0	1	"	"	58·2
04·565			04·58	5	04·5	2	"	"	73·6
					02·4	1	"	"	97·
					02·2	1	"	"	99·
01·582				1			"	"	33306·3
					01·2	1	"	"	11·
					2998·0	1n	"	"	46·
			2997·45	1n	97·4	1	"	9·6	52·1
				97·3	1	"	"	54·	
				96·8	1	"	"	59·	
				96·1	1	"	"	67·	
2995·828			0			"	"	70·2	
				95·7	2	"	"	72·	
91·881		91·87	2			"	"	33414·2	
				91·6''	1n	"	"	17·	
				90·7	1	"	"	27·	
90·158			0			"	"	33·4	
90·048		90·07	0			"	"	34·5	
			2	89·5	1n	"	"	41·	
89·302			0			"	"	43·0	
88·977		88·97	0	88·9b	6	"	"	46·7	
88·487		88·47	0	88·4	4	"	"	52·2	
87·568		87·56	3			"	"	62·5	
				87·4	2	"	"	64·	
87·117		87·11	5			"	"	67·5	
				87·0	2	"	"	69·	
				86·7	1	"	"	72·	
86·330	2986·321	86·32	7			"	"	76·4	
				86·2	4	"	"	78·	
				85·2	1	"	"	89·	
84·593			0			"	"	95·8	
84·135			0			"	"	33500·9	
				83·7	1	"	"	06·	
83·194		83·20	4	83·2	1	"	"	11·5	
82·514		82·51	3	82·5	1	0·84	"	19·2	
				81·9	1	"	"	26·	
81·238		81·25	2	81·2	1	"	"	33·4	
				79·6	1	"	"	52·	
				79·5	1	"	"	53·	
77·809		77·81	5			"	"	72·1	
				77·7	2	"	"	73·	
				76·5	1n	"	"	87·	
75·935		75·92	2			"	"	93·4	
				75·7	1n	"	"	96·	
				75·0	1	"	"	33604·	
71·156		74·15	3	74·2	1	"	"	13·4	
		73·28		73·2	1n	"	"	23·3	
				72·6	1b	"	"	31·	
71·741			0			"	"	40·7	
				71·5	1	"	"	43·	
70·807				70·8	1n	"	9·7	51·2	

RHODIUM—*continued*.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda} -$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek	Character			
2968·790		2968·79	6	2968·7	4	0·84	9·7	33674·1
				68·2	1	"	"	81·
				67·1	1	"	"	93·
65·801			0			"	"	33708·0
		65·26	2	65·2	1	"	"	14·2
65·018			0			"	"	16·9
				64·8	1	"	"	19·
63·664		63·64	2	63·6b	10	"	"	32·5
				62·2	4	"	"	49·
61·805		61·78	2			"	"	53·7
60·773			0			"	"	65·3
60·686			0			"	"	66·3
				60·0	1	"	"	74·
59·769		59·76	4			"	"	76·8
59·478		59·48	1			"	"	80·0
58·899		58·89	4			"	"	86·7
				58·7	1	"	"	89·
58·504			0			"	"	91·2
				58·4	1	"	"	92·
				57·6	1	"	"	33801·
				57·5	1	"	"	03·
				57·0	1	"	"	08·
56·406			1			"	"	15·1
56·229			0			"	"	17·2
55·942			0			"	"	20·5
				55·7	1	"	"	23·
55·541		55·54	2	55·5	1	"	"	25·1
55·395		55·43	2			"	"	26·6
				53·9	1	"	"	44·
				53·5	1	"	"	48·
51·957			1			"	"	66·1
				50·6	1	"	"	82·
50·023		50·02	2n			"	"	88·4
				49·8	1	"	"	91·
49·475			1			"	"	94·6
				48·8	1	"	"	33902·
48·388			0			"	"	07·1
				48·1	4	"	"	10·
				47·6	4	"	"	16·
				46·7	4	"	"	27·
46·042		46·03	2	46·1	1	"	"	34·2
				44·9	4	"	9·8	47·
42·116			0			0·83	"	79·3
41·246		41·25	3	41·2	1	"	"	89·4
				40·6	1	"	"	97·
40·175			0			"	"	34001·8
				39·7	1	"	"	07·
39·588		39·58	2			"	"	08·6
38·403		38·39	2			"	"	22·4
				38·2	1b	"	"	25·
37·285			2			"	"	35·2
				36·0	1	"	"	50·
				35·2	1	"	"	59·
34·988			0			"	"	61·9

RHODIUM—*continued.*

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	λ +	1 — λ	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
				2934.2	1	0.83	9.8	34071.
				33.3	1	”	”	81.
				32.6	1	”	”	90.
2932.065		2932.07	4	32.1	2	”	”	95.8
				31.6	1	”	”	34101.
29.256		29.25	4	29.2	2	”	”	28.6
28.559			0	28.6	2	”	”	36.4
27.062			0	27.0	6	”	”	54.5
26.953		26.94	0			”	”	55.5
				26.4b	1	”	”	62.
26.322			0			”	”	62.8
26.160			0			”	”	64.7
24.140		24.15	4	24.2b	8	”	”	88.2
23.239		23.23	4	23.2	1	”	”	98.9
21.229			0			”	9.9	34222.3
				21.0	1	”	”	25.
20.296			1			”	”	33.2
				19.7	2	”	”	40.
17.028			0	17.0	1n	”	”	71.6
15.534		15.52	3	15.5	2	”	”	89.2
				15.0	2	”	”	95.
14.691			0			”	”	99.1
14.114		14.09	3			”	”	34306.0
13.715		13.70	2			”	”	10.7
				13.5	4	”	”	13.
13.474			0			”	”	13.4
13.185			0			”	”	16.8
12.746		12.74	3	12.7	1	”	”	22.0
10.281		10.30	4	10.3b	10	”	”	50.9
09.837			0			”	”	56.3
07.835			1			”	”	79.9
07.335		07.33	3	07.3	2	”	”	85.9
				07.1	2	”	”	89.
05.106		05.07	2			”	”	34412.4
				05.0	1	”	”	14.
				04.7	1	”	”	17.
04.440			0			”	”	20.1
				04.3	1	”	”	22.
				04.1	1	”	”	24.
03.960			0			0.82	”	25.8
03.428			2			”	”	32.1
				03.0	1n	”	”	37.
02.975			0			”	”	37.5
00.080		00.07	4			”	”	71.9
				00.0	1	”	”	73.
2899.800		2899.79	2			”	”	75.3
				2899.0	1	”	”	85.
97.806			0			”	”	99.0
				97.7	4	”	”	34500.
97.171			0			”	”	06.5
				96.2	4	”	10.0	18.
95.823			1			”	”	22.5
				95.7	2	”	”	24.
				93.3	1n	”	”	53.

RHODIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
2893·142			1			0·82	10·0	34554·5
92·817			4			"	"	58·4
92·320		2892·33	3			"	"	64·3
				2892·0	1n	"	"	68·
				91·0	1n	"	"	80·
				90·0	1	"	"	92·
89·962		89·96	3			"	"	92·5
89·623			1			"	"	96·6
				89·3	2n	"	"	34600·
89·222		89·21	3			"	"	01·5
88·986			0			"	"	04·2
				87·8	1	"	"	18·
87·082			0			"	"	27·0
86·112		86·10	3			"	"	38·8
				86·0''	1	"	"	40·
				85·4	1	"	"	47·
85·364			0			"	"	47·7
				85·0	1	"	"	52·
84·683		84·67	2			"	"	55·9
				84·3	2n	"	"	60·
				82·7	1	"	"	80·
82·497		82·50	4			"	"	82·1
				82·5	1	"	"	88·
				82·0	1	"	"	95·4
81·400		81·39	2			"	"	34701·2
80·912		80·91	2			"	"	02·8
80·775		80·80	1			"	"	16·7
79·628			0			"	"	21·
				79·3	1	"	"	27·1
78·770		78·76	4			"	"	33·
				78·7	1	"	"	34·7
				78·3	2n	"	"	36·
78·139			0			"	"	53·4
				78·0	1	"	"	58·
76·592			0			"	"	63·4
				76·2	1	"	"	67·
75·764			2			"	"	77·
				75·5	1	"	"	78·6
				74·6	4	"	"	83·4
74·507			0			"	"	87·8
74·115		74·10	2			"	"	94·
73·742		73·75	4			"	"	95·6
				73·8	1	"	"	34809·
				73·2	2	"	"	15·0
73·104			0			"	"	23·
				72·0	1n	"	10·1	26·5
71·489		71·49	5n			"	"	31·8
				70·8	1	"	"	36·2
70·551		70·54	2			"	"	45·
70·108		70·10	2			"	"	52·7
69·746			0			"	"	54·
				69·0	1n	"	"	57·7
68·400		68·37	2			"	"	62·9
				68·4	1n	"	"	84·7
				68·3	2	"	"	
67·973			1			"	"	
		67·55	1			"	"	
65·755		65·75	2			"	"	
				67·5	2	"	"	
				65·8	2	"	"	

RHODIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
2864.517		2864.51	3	2864.7	1	0.81	10.1	34898.99.8
				63.8	4	"	"	34909.16.
				63.2	4	"	"	17.6
63.057		63.06	6			"	"	23.5
62.572			0			"	"	32.0
61.877			0			"	"	34.
				61.7	1	"	"	43.
				61.0	1	"	"	44.4
60.886		60.84	4			"	"	45.5
60.774			3			"	"	52.4
60.203			0			"	"	56.4
59.908		59.86	2			"	"	58.2
59.735		59.73	2	59.7	1	"	"	77.
				58.2	1n	"	"	92.
				57.0	1	"	"	35000.8
		56.25	2	56.2	1	"	"	12.8
55.273			4			"	"	18.1
54.848		54.84	2			"	"	24.
				54.4	1	"	"	25.5
54.237			0			"	"	33.
				53.6	1	"	"	35.
				53.5	1	"	"	41.
				53.0	1	"	"	43.1
52.809			0			"	"	47.4
52.459			1			"	"	49.
				52.3	1n	"	"	58.8
51.526			0	51.6	1	"	"	63.
				51.2	1	"	"	70.2
50.608			1			"	"	71.
				50.5	2	"	"	84.5
49.461		49.43	2			"	"	91.
				48.9	1	"	"	96.
				48.5	1	"	"	35106.
				47.7	1	"	10.2	28.6
45.868		45.84	2	45.8b	8	"	"	40.2
44.917			0			"	"	44.
				44.6	1b	"	"	45.9
44.463		44.45	4n			"	"	63.
				43.1	1n	"	"	73.2
42.270		42.24	4n	42.3	1	"	"	77.5
41.909		41.90	4n			"	"	89.
				41.0	2	"	"	35205.2
39.666			0			"	"	20.8
38.425		38.40	2	38.4	1	"	"	35.
				37.3	1n	"	"	40.9
36.799		36.78	4	36.8	1	"	"	45.
				36.5	1	"	"	55.2
35.671		35.61	1	35.6	1	"	"	56.7
		35.52	1			"	"	63.3
34.990			1			"	"	72.
				34.3	2	"	"	72.8
34.233		34.22	3			"	"	75.9
33.981			1			"	"	

RHODIUM—*continued.*

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
2796·743		2796·75	3	2798·3	1	0·80	10·4	35726·
				97·9	1	"	"	31·
				97·1	1n	"	"	41·
				96·4	1	"	"	45·4
95·824			2	95·6	1n	"	"	50·
95·366		95·37	1			"	"	57·2
94·587			0			"	"	60·
94·020			2	94·0	1	"	"	63·1
92·886		92·88	2	92·8	4	"	"	73·1
91·270		91·27	4	91·2	1n	"	"	80·3
90·872		90·88	2	90·9	4	"	"	94·9
90·493		90·50	2			"	"	35815·6
				89·1	1n	"	"	20·6
86·934		86·93	2			"	"	25·5
85·920			0			"	"	43·
				85·3	1	"	"	70·6
				84·8	1	"	"	84·4
				84·3''	1	"	"	92·
				83·6	1	0·79	"	99·
83·140		83·14	5	83·2	1	"	"	35905·
				82·8	1	"	"	14·
				82·0b	6	"	"	20·2
81·184			1	81·2	1	"	"	25·
				80·6	1n	"	"	35·
80·439		80·45	3			"	"	45·5
				79·8	1	"	"	53·
79·654		79·65	3			"	"	55·1
78·967		78·96	3			"	"	63·
				78·8	1	"	"	65·3
				78·4b	6	"	"	74·2
						"	"	76·
78·162		78·16	4			"	"	82·
				76·0	6	"	"	84·6
75·869		75·86	2			"	"	36013·
				75·2b	1	"	10·5	14·3
74·557		74·56	2			"	"	23·
				74·4	4	"	"	31·3
73·397			2			"	"	33·
				73·2	4	"	"	46·4
				72·5b	1	"	"	49·
71·615		71·63	4			"	"	58·
				71·2	1	"	"	69·4
						"	"	75·
70·277			1			"	"	87·0
68·336		68·33	4	68·3	1	"	"	36112·3
67·832		67·83	4	67·8	1	"	"	18·9
		66·64	1	66·6b	4	"	"	34·4
		64·92	2	65·0	4	"	"	57·0
64·909				64·2	1	"	"	66·
				64·0	1	"	"	69·
						"	"	82·8
62·938		62·94	2			"	"	91·2
62·311			0	62·3	1	"	"	36204·
				61·3	2	"	"	14·2
60·541		60·55	2			"	"	

RHODIUM—continued.

Arc Spectrum			Spark Spectrum			Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
				2759.7	1	0.79	10.5	36225.
				59.3	1n	"	"	31.
				57.6	1n	"	"	53.
2757.005			1	56.9	2	"	"	60.7
54.845			0	54.3	4	"	"	89.2
				53.3	1	"	"	96.
				53.2	1	"	"	36310.
				53.1	1	"	"	11.
52.941		2752.95	2	52.3	2	"	"	12.
				51.6	1	"	"	14.2
51.450		51.47	2			"	"	23.
51.140			0			"	10.6	32.
		49.38	1			"	"	34.0
				48.4	1	"	"	38.0
				47.7	4	"	"	61.2
				45.8	1	"	"	74.
				44.8	1b	"	"	83.
43.568		43.55	0			"	"	36409.
		41.85	2	41.8	1	0.78	"	22.
				41.7	1	"	"	38.4
40.647		40.63	2			"	"	61.1
40.487			0			"	"	63.
40.304		40.30	2			"	"	77.2
40.027		40.00	1	40.0b	8	"	"	79.3
39.845		39.80	1			"	"	81.7
38.359		38.34	2			"	"	85.6
37.717		37.67	2			"	"	88.1
37.509		37.47	2	37.5b	8	"	"	36507.7
36.860		36.84	3	36.8	1	"	"	16.5
				35.7	1	"	"	19.2
				35.2	1	"	"	27.9
34.906		34.89	2			"	"	43.
				34.2	1	"	"	50.
32.261			0			"	"	53.8
31.874			0			"	"	63.
				31.7	1	"	"	89.1
				30.8	4	"	"	94.3
29.611			0	29.7	1	"	"	97.
29.034		29.00	6	29.1b	6	"	"	36609.
				27.7	1	"	"	24.7
26.934			0			"	"	32.6
25.961			0			"	10.7	50.
						"	"	60.5
				25.8	1	"	"	73.6
				25.1	1	"	"	76.
				24.1	1	"	"	85.
				23.1	1	"	"	99.
				22.9	1	"	"	36712.
22.389			0	22.3	1	"	"	15.
22.243		22.23	2			"	"	21.7
		20.60	2	20.6	1	"	"	23.8
20.235		20.23	3			"	"	45.9
						"	"	50.9

RHODIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
		2647.07	1	2644.2	1	0.76	11.0	37767.5
								37808.
2643.691		43.68	2			"	"	15.0
43.077		43.10	3			"	"	23.5
42.857			0	42.8	4	"	"	26.8
				41.7	4	"	"	43.
				40.6	2n	"	"	59.
				39.8	1	"	"	71.
39.327			0			"	"	77.4
				39.2b	4	"	"	79.
39.097			0			"	"	80.7
38.839		38.84	2	38.8	4	"	"	84.4
38.388		38.39	0			"	"	90.9
37.484			0			"	"	37903.9
				37.0	1n	"	"	11.
36.744			1			"	"	14.6
				36.5	1	"	"	18.
		35.40	1			"	"	33.9
				35.3b	6	"	"	35.
35.082		35.07	3			"	"	38.6
34.605			0	34.6	4	"	"	45.4
33.523		33.50	2			"	"	61.1
33.373		33.40	2	33.4	1	"	"	62.9
				32.7	1	"	"	73.
				31.3	1	"	"	79.
30.509		30.49	2			"	11.1	38004.4
				30.3b	4	"	"	07.
30.003		30.00	2			"	"	11.7
28.222		28.22	0	28.2b	8	"	"	37.4
				27.9	2	"	"	42.
27.042			0			"	"	54.5
26.776		26.77	2	26.7	4	"	"	58.4
25.973		26.00	3	26.0	1	"	"	69.9
25.496		25.51	1	25.5b	8	"	"	76.8
25.309		25.33	2			"	"	79.5
24.948		24.96	0			"	"	84.8
24.821			0	24.8	2	"	"	86.7
22.756		22.70	1			"	"	38117.1
22.661			4	22.6	2	"	"	18.1
				21.2	1	"	"	39.
21.099		21.12	2			"	"	40.7
				20.0	1	"	"	57.
				19.0	1	"	"	71.
18.596		18.61	3			"	"	77.2
				17.8	1n	"	"	89.
				17.1	1	"	"	99.
16.178		16.17	2			"	"	38212.7
				16.0	1	"	"	15.
15.735		15.74	2			"	"	19.0
				15.4''	1	"	"	24.
				14.7	1	"	"	34.
				13.8	1	"	"	47.
13.689		13.70	4n	13.6	1	"	"	48.9
13.145		13.19	0			"	"	56.6

RHODIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
2612.315			0	2611.8	2	0.76	11.1	38269.1
				11.4	1	"	"	77.
				10.3	1	"	"	83.
10.156			0	09.7	1	0.75	"	99.
09.266	2609.26		0	09.0b	8	"	11.2	38300.8
08.639	08.64		2	08.3	1	"	"	07.
07.831	07.83		2			"	"	13.8
06.540	06.55		4	06.5	1	"	"	18.
05.807	05.80		2			"	"	22.9
				04.3	2	"	"	28.
03.500	03.51		4			"	"	34.9
				03.3	2	"	"	53.8
01.926			0			"	"	64.7
				01.5	2	"	"	87.
				00.6	2	"	"	98.6
				2599.7	1	"	"	38402.
2599.352			0	99.4	1	"	"	21.9
				98.3	1	"	"	28.
98.166	2598.20		2			"	"	41.
97.774	97.80		2	97.8	1	"	"	55.
97.484						"	"	59.9
	97.16		0			"	"	75.
97.014	97.06		3	97.0b	8	"	"	77.2
96.134			0			"	"	83.1
				95.3	2	"	"	87.6
				93.5	4	"	"	92.4
92.247	92.26		0			"	"	94.2
	90.91		1	92.1b	6	"	"	38507.6
				90.8	1	"	"	20.
89.892			1			"	"	47.
88.545	88.55		0n			"	"	65.3
87.353			0	87.3b	4	"	11.3	68.
87.245	87.25		2			"	"	85.3
86.897	86.90		2			"	"	87.
				86.4	4	"	"	38600.5
84.016			1			"	"	20.5
				83.3	1	"	"	38.2
				82.7	2	"	"	39.8
81.790	81.80		0			"	"	45.0
81.100	81.14		2	81.6b	4	"	"	52.
				80.5	2	"	"	88.1
80.043			0			"	"	99.
				79.7	2	"	"	38708.
79.650	79.64		0			"	"	21.4
79.487	79.49		2			"	"	24.
				79.2	1	"	"	31.6
				77.9	1	"	"	41.
				77.3	1n	"	"	47.7
						"	"	53.
						"	"	53.7
						"	"	56.1
						"	"	60.
						"	"	80.
						"	"	89.

RHODIUM—*continued.*

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$1 - \lambda$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
2576·330		2576·32	3			0·75	11·3	38803·7
		75·85	2			"	"	10·8
74·751		74·75	2	2574·7	1n	"	"	27·4
74·332		74·33	2n			"	"	33·8
73·577		73·60	2n			"	"	44·9
				71·6	1n	"	"	75·
				70·4	1	"	"	93·
70·206		70·20	2			"	"	96·1
69·171		69·16	0			"	"	38911·8
				69·0	4	"	"	14·
				68·8b	4	"	"	17·
67·374		67·37	4			"	11·4	38·9
66·960		66·95	2	66·9	1	"	"	45·3
66·137		66·13	2			"	"	57·7
				66·0	1	"	"	60·
65·888		65·86	2			"	"	61·7
				65·1	2	"	"	73·
64·900			0			0·74	"	76·5
				64·3	1	"	"	86·
				63·7	1	"	"	95·
62·741		62·75	0n			"	"	39009·2
				62·6	1	"	"	11·
				62·0	2	"	"	21·
60·322		60·33	2			"	"	46·1
		60·02	1			"	"	50·8
				59·8b	4	"	"	54·
58·714		58·76	4	58·7	1	"	"	70·4
				57·8	2	"	"	85·
				57·1b	6	"	"	95·
		56·98	1			"	"	97·2
56·172		1	1			"	"	39109·6
55·449		55·45	4			"	"	20·6
				55·3	2	"	"	23·
55·010		55·00	1			"	"	27·5
				54·7	1	"	"	32·
53·426		53·42	0n			"	"	51·7
				53·1	1	"	"	57·
				52·3	1	"	"	69·
51·289		51·30	2			"	"	84·4
				50·6	1	"	"	95·
				49·6	1	"	"	39210·
48·679		48·67	2			"	11·5	24·6
		47·75	1			"	"	38·8
				47·6	1	"	"	41·
47·366			0			"	"	44·7
45·794		45·79	4			"	"	69·0
		45·44	1	45·4b	8	"	"	74·4
44·317		44·30	2			"	"	91·9
				44·0	4	"	"	97·
43·648		43·63	0			"	"	39302·3
				43·4	1	"	"	06·
41·096		41·11	2	41·1	2	"	"	41·5
39·860		39·88	4n			"	"	60·6
				39·7	1	"	"	63·

RHODIUM—*continued.*

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$1 - \lambda$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
				2539.2	1	0.74	11.5	39371.
				38.6''	1	"	"	80.
		2537.80	1			"	"	92.7
2537.721		37.72	2	37.7	4	"	"	93.9
37.155		37.16	3	37.1	1	"	"	39402.7
36.803		36.80	3	36.8	1	"	"	08.2
				36.2	1	"	"	18.
				35.7	1	"	"	25.
				35.3	2	"	"	32.
34.682			0	34.6	4	"	"	41.2
34.170		34.18	2			"	"	49.2
				34.0	1	"	"	52.
33.687		33.70	2			"	"	56.6
				33.5	2	"	"	60.
32.743		32.79	2			"	"	71.0
				32.3	2	"	"	78.
31.920		31.85	2			"	"	84.8
31.369			0	31.3	4	"	"	92.8
31.053			0			"	"	97.7
30.284			0			"	11.6	39509.7
				29.3	2	"	"	24.
				27.3	1	"	"	56.
		27.14	1			"	"	58.8
26.744			0	26.7	1	"	"	65.0
26.244		26.25	2			"	"	72.8
26.092		26.10	1			"	"	75.2
				26.0''	1	"	"	77.
25.221		25.21	0			"	"	89.0
		24.36	1			"	"	39602.4
				23.4	2	"	"	17.
22.988		22.98	2n			"	"	24.0
				22.7	1	"	"	28.
				21.4	1	"	"	49.
20.623		20.66	2			"	"	60.8
				20.5b	8	"	"	63.
				19.3	2	"	"	82.
18.561			0			"	"	93.6
				17.5b	4	0.73	"	39710.
15.833		15.84	2			"	"	36.6
				15.7	1	"	"	39.
				15.3	2	"	"	45.
		14.82	1n			"	"	52.7
				14.7	1	"	"	55.
13.464		13.50	2			"	"	74.1
				13.3	1	"	"	77.
12.180		12.19	2			"	"	94.4
11.133		11.15	2	11.2	2	"	11.7	39810.8
		10.88	1			"	"	15.0
10.747		10.75	2			"	"	17.1
				10.6b	8	"	"	19.
09.788		09.81	2			"	"	32.1
				09.6	1	"	"	35.
08.743		08.73	0			"	"	49.0
				08.1	2	"	"	59.

RHODIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
2507.342		2507.35	0			0.73	11.7	39870.9
				2506.1	1	"	"	91.
05.758		05.76	2			"	"	96.4
05.189		05.20	2	05.1b	4	"	"	39905.4
04.384		04.39	4n			"	"	18.2
03.939			1			"	"	25.4
				03.8b	2	"	"	28.
03.458			0			"	"	33.0
02.843			1			"	"	42.9
02.546		02.55	2	02.6	1	"	"	47.5
				02.4	1	"	"	50.
				01.3	2	"	"	68.
01.115		01.10	1			"	"	70.6
00.740		00.74	0			"	"	76.5
00.668		00.67	2			"	"	77.6
		2499.81	1			"	"	91.3
				2499.2	2n	"	"	40001.
2499.095		99.10	2n			"	"	02.7
				98.1	2n	"	"	19.
				96.8	1n	"	"	40.
				96.0	1	"	"	52.
94.604		94.61	4n			"	"	74.8
				94.3	1	"	"	80.
93.733		93.73	1			"	11.8	88.8
				93.4	1n	"	"	94.
92.395		92.39	2			"	"	40110.3
		91.93	1			"	"	17.8
				91.8b	4	"	"	18.
90.860		90.85	3			"	"	35.0
				90.7b	10	"	"	38.
89.986		89.98	0			"	"	49.1
				89.8	1	"	"	52.
				89.2	1	"	"	62.
88.547		88.54	1			"	"	72.3
				88.3	2	"	"	76.
		88.24	1			"	"	77.3
87.581		87.60	4			"	"	87.7
				86.7	1	"	"	40202.
85.688		85.67	2	85.7	4	"	"	18.6
				84.6	2n	"	"	36.
83.423		83.41	2n			"	"	55.3
				83.3	1	"	"	57.
				82.7	4	"	"	67.
		82.15	2			"	"	75.9
81.686			0			"	"	83.4
				81.2	2	"	"	91.
80.921		80.94	0			"	"	95.7
80.596		80.60	0			"	"	40301.1
				80.4	4	"	"	04.
		79.85	2			"	"	13.2
				79.1	1	"	"	25.
				78.6	1	"	"	34.
77.618		77.61	1			"	"	49.6
				77.2	2	"	"	56.

RHODIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
2475·978			0			0·73	11·9	40376·2
75·749		2475·72	0			"	"	80·1
				2475·6b	8	"	"	82·
75·097		75·11	4			"	"	90·5
74·677		74·67	1			"	"	97·5
74·116		74·12	0	74·1	1	"	"	40406·5
				73·4	1	"	"	18·
73·199		73·20	2			"	"	21·5
		73·00	1			"	"	24·8
72·571		72·56	2			"	"	31·9
				71·7	2	"	"	46·
71·561		71·56	2			"	"	48·4
70·860			0			"	"	59·8
				70·6	1	"	"	64·
70·486		70·50	2			"	"	65·9
				69·6	1	0·72	"	80·
69·203		69·20	1			"	"	87·0
				68·8	1	"	"	94·
				68·2	1	"	"	40503·
				67·1	1	"	"	22·
				66·1	1	"	"	38·
				65·2	1n	"	"	53·
63·670		63·70	4n			"	"	77·7
				63·4	2	"	"	82·
		62·74	1			"	"	93·3
61·120		61·14	2			"	"	40619·8
				61·0b	8	"	"	22·
59·237			1			"	12·0	51·0
59·004		59·00	2	59·0b	6	"	"	54·9
56·277		56·26	1	56·2b	4	"	"	40700·2
55·788		55·79	2	55·7	8	"	"	08·1
55·521			0			"	"	12·5
53·898			0			"	"	39·5
				52·1	1	"	"	69·
				51·0	1	"	"	88·
50·660		50·67	3			"	"	92·2
				50·5	1	"	"	96·
				49·5	1n	"	"	40813·
		49·15	2			"	"	18·5
48·923		48·92	2			"	"	22·3
				48·8	1n	"	"	24·
48·378		48·36	0			"	"	31·5
				47·8	4	"	"	41·
				47·4	1	"	"	48·
				46·8	1	"	"	58·
45·714		45·70	2			"	"	76·0
				45·2	2	"	"	84·
44·843			0	44·8	1	"	"	90·4
44·337		44·35	4n			"	"	98·8
				44·2	2	"	"	40901·
43·812			0			"	12·1	07·6
43·221			0			"	"	17·5
42·830			0			"	"	24·0
				41·3	1	"	"	50·

RHODIUM—*continued*.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	λ +	1 - λ	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
2440·427		2440·45	2	2440·6	1	0·72	12·1	40961·
						”	”	64·1
39·338			0	39·8	1	”	”	75·
						”	”	82·6
37·174		37·16	2	38·7	4	”	”	93·
36·974			0			”	”	41019·1
						”	”	22·4
				36·8	4	”	”	25·
				35·2	2	”	”	52·
				35·0	1	”	”	56·
				33·6	1n	”	”	79·
33·346			0	33·4	1n	”	”	82·7
32·755		32·75	1	32·7	1	”	”	93·6
		32·03	1			”	”	41105·8
31·936		31·94	2			”	”	07·4
						”	”	10·
				31·8	3	”	”	15·
				31·5	2	”	”	27·
				30·8	2	”	”	44·
				29·8b	2	”	”	46·9
29·610		29·60	2			”	”	49·
				29·5	2	”	”	52·6
29·268			0			”	”	56·2
29·053			2	29·1	2	”	”	77·8
27·777		27·77	2			”	12·2	87·5
27·193		27·20	3	27·2	2	”	”	89·
				27·1b	4	”	”	99·
				26·5	2	”	”	41218·
				25·4	1	”	”	33·2
24·521		24·51	0	24·5	2	”	”	40·2
				24·1	2	”	”	41·9
24·021		24·02	2			”	”	45·
				23·8	1	”	”	50·
				23·5	2	”	”	56·
				23·2	2	”	”	66·
				22·6	1	”	”	71·9
22·237			0	22·2	2	”	”	78·
				21·9	1	0·71	”	92·1
21·060		21·05	2	21·0b	6	”	”	93·9
20·947			0	20·1	2	”	”	41305·6
20·271		20·26	2			”	”	13·7
		19·79	2			”	”	32·1
18·718		18·71	3			”	”	52·5
17·523			0	17·5	4	”	”	65·
				16·8	2	”	”	79·7
		15·93	2			”	”	82·
				15·8b	6	”	”	96·9
14·927			3			”	”	41401·5
14·662			0	14·6	1	”	”	05·4
14·433			0			”	”	16·
				13·8	1	”	”	36·6
12·613		12·61	1			”	12·3	49·
				11·9	1	”	”	71·
				10·6	4	”	”	75·5
10·348		10·35	0			”	”	

RHODIUM—*continued.*

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
2409.626		2409.62	0			0.71	12.3	41488.0
08.745			0			"	"	41503.1
				2408.6	2	"	"	06.
08.275		08.26	1			"	"	11.3
08.100		08.06	0			"	"	14.6
07.974		07.97	2			"	"	16.4
				07.8	1	"	"	19.
				06.9	1	"	"	35.
06.472			0			"	"	42.3
				05.3	4	"	"	63.
				04.0	1	"	"	85.
				03.3	2	"	"	97.
				00.6	2	"	"	41644.
				2399.3	1	"	"	67.
2399.044		2399.05	0			"	"	70.9
				98.9	1	"	"	73.
96.617		96.61	0	96.6b	8	"	12.4	41713.1
				95.7	1	"	"	29.
				92.4b	8	"	"	87.
				90.7	4	"	"	41816.
				89.9	1	"	"	30.
				89.2	1	"	"	43.
				87.9	2	"	"	65.
86.489			0			"	"	90.1
86.222		86.23	4	86.2	2	"	"	94.8
				85.5	4	"	"	41908.
84.751		84.76	2			"	"	20.6
				83.6	4	"	"	41.
83.490		83.50	2			"	"	42.8
82.969		83.00	2	82.8	2	"	12.5	51.7
				82.1	2	"	"	67.
				81.0	1	"	"	87.
				79.5	ln	"	"	42013.
		79.02	1			"	"	21.6
				78.0	4	"	"	40.
				76.8	1	"	"	61.
				76.4	1	"	"	68.
				75.0	2	"	"	93.
				73.7	ln	0.70	"	42116.
				72.9	1	"	"	30.
				71.7	1	"	"	51.
				71.1	ln	"	"	62.
70.642		70.67	2			"	"	69.9
				70.3	1	"	"	76.
69.654		69.66	2	69.7	2n	"	"	87.7
		68.94	ln			"	"	42200.5
68.380		68.38	3			"	12.6	10.4
		66.97	1	67.0''b	4	"	"	35.5
				66.4	ln	"	"	46.
				65.3	ln	"	"	65.
		64.74	1	64.8	2	"	"	75.3
				64.3	2	"	"	83.
				63.2	1	"	"	42303.
		62.01	1	62.2	1	"	"	24.2

RHODIUM—*continued*.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnal	Exner and Haschek		Exner and Haschek	Character			
2345·597		2361·25	1	2361·6	1	0·70	12·6	42332·
				60·9	1	"	"	37·8
				60·5	1	"	"	44·
				59·7	2	"	"	51·
		59·26	1	59·3	2	"	"	66·
		58·55	1			"	"	73·6
				58·0	1	"	"	86·3
				57·6	1	"	"	96·
				56·3	1	"	"	42403·
				55·8	1 ^a	"	"	27·
				55·2	1	"	"	36·
				54·2	1	"	12·7	47·
				53·7	1	"	"	65·
				53·0	1n	"	"	74·
		52·55	1	52·5	1	"	"	86·
				51·7	1	"	"	94·4
				51·3	1	"	"	42510·
				50·4	1	"	"	17·
				49·7	1	"	"	33·
				48·0	2	"	"	46·
				47·2	1	"	"	77·
				46·8	2	"	"	91·
				46·5b	4	"	"	99·
			1			"	"	42604·
				45·0	2	"	"	20·4
				44·4	1n	"	"	31·
				43·6	1	"	"	42·
				43·3	1	"	"	57·
				42·5	2	"	"	62·
				41·8	1	"	"	77·
				40·1	1	"	12·8	89·
				38·6	1	"	"	42720·
				36·9	2	"	"	48·
				35·9	1	"	"	79·
				35·2	2	"	"	97·
		34·85	2	34·8b	6	"	"	42810·
	34·762		1			"	"	16·5
		33·37	1	33·4	4	"	"	18·1
				29·5	1n	"	"	43·7
	28·737	28·74	2			"	"	42915·
				28·5	2	"	"	28·9
				27·8b	4	"	"	33·
		26·56	1	26·5	1	"	12·9	46·
				25·5	1	0·69	"	69·0
				23·0	1	"	"	89·
		22·68	1	22·6	1	"	"	43035·
		21·82	1	21·9	1	"	"	40·8
		19·95	1			"	"	56·8
	19·173	19·18	2			"	"	91·5
	18·432	18·44	2			"	"	43105·9
					17·4	1	"	19·6
				16·6	1	"	39·	
				14·2	1	"	54·	
						13·0	98·	

RHODIUM—continued.

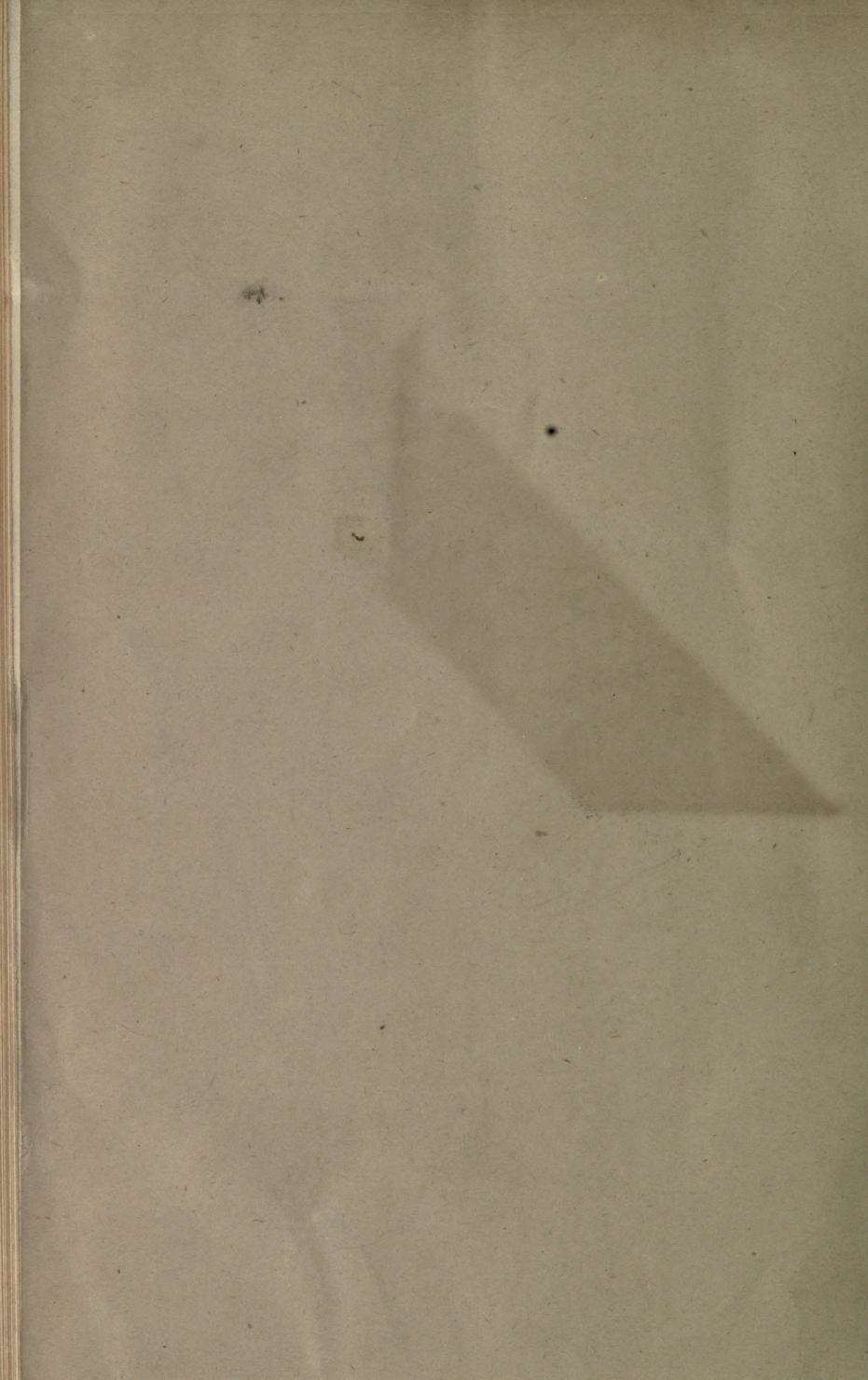
Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo	
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$		
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek					
2308.88				2313.9	1	0.69	13.0	43204.	
				13.5	1	"	"	12.	
				12.6	2	"	"	28.	
				11.6	1	"	"	47.	
		2311.14	1			"	"	55.7	
		09.89	1			"	"	79.1	
			2	09.0	1	"	"	96.	
						"	"	98.0	
				08.2	1	"	"	43311.	
				05.9	2	"	"	54.	
				05.0	1	"	"	71.	
				01.9	1	"	"	43429.	
				00.5	1n	"	13.1	56.	
				2298.8	1	"	"	88.	
				98.3	4	"	"	97.	
		2294.54	1	94.6	2	"	"	43568.6	
				94.2	4	"	"	75.	
		93.35	1			"	"	91.2	
		90.10	1	90.2	8	"	"	43651.	
				89.7	1	"	"	53.1	
						"	"	61.	
		88.97	1			"	"	74.7	
		88.61	1			"	"	81.5	
					88.3	1	"	13.2	87.
					86.2	1	"	"	43728.
					85.1	1	"	"	49.
					84.2	4	"	"	66.
					83.6	1	"	"	77.
					83.2	1	"	"	85.
					83.0	1	"	"	89.
					81.4	1	"	"	43820.
					81.2	1	"	"	23.
					80.9	1	"	"	29.
					80.1	1	"	"	45.
					78.1	1	"	"	83.
					78.0	1	"	"	85.
					77.3	1	0.68	"	98.
			77.00	1	77.0	2	"	"	43904.2
					76.3	2	"	"	18.
					74.2	1	"	13.3	58.
				73.7	1	"	"	68.	
				71.5	1	"	"	44010.	
				70.5	1	"	"	30.	
				68.9	2	"	"	61.	
				68.0	1	"	"	78.	
				65.7	1n	"	"	44123.	
				63.5	4	"	"	66.	
				61.8	2	"	13.4	99.	
				58.6	1	"	"	44262.	
				58.4	1	"	"	96.	
				57.3	1	"	"	87.	
				55.7	1	"	"	44319.	
				55.5	2	"	"	23.	
				50.9	2	"	13.5	44413.	

RHODIUM—continued.

Arc Spectrum				Spark Spectrum		Reduction to Vacuum		Oscillation Frequency in Vacuo
Wave-length			Intensity and Character	Wave-length	Intensity and Character	$\lambda +$	$\frac{1}{\lambda}$	
Kayser	Rowland and Tatnall	Exner and Haschek		Exner and Haschek				
				2250.1	1	0.68	13.5	44429.
				49.7	1	"	"	37.
				48.7	1n	"	"	57.
				47.8	1n	"	"	74.
				47.0	1	"	"	90.
				41.0	1	"	"	44609.
				40.8	1	"	"	13.
				40.2	1	"	"	25.
				39.2	2	"	"	45.
				38.4	1	"	13.6	61.
				37.7	2	"	"	75.
				37.2	1	"	"	85.
				36.7	1	"	"	95.
				36.5	1	"	"	99.
				36.0	1	"	"	44709.
				35.3	1	"	"	23.
				30.7	2	"	"	44815.
				29.2	1n	0.67	"	46.
				28.3	1	"	"	64.
				26.7	2	"	13.7	96.
				26.0	1	"	"	44910.
				25.1	2	"	"	28.
				22.0	1	"	"	91.
				20.9	1	"	"	45013.
				20.4	1	"	"	23.
				19.4	1	"	"	44.
				06.5	1	"	13.8	45307.
				2199.0	1	"	13.9	45461.
				96.2	1	"	"	45519.
				94.2	1	"	"	61.
				92.8	1	"	"	90.
				91.0	1	"	14.0	45627.
				86.0	1	"	"	45732.
				82.0	1	"	"	45816.
				67.3	2	0.66	14.2	46126.

NOTE.—Lines marked *a* are resolved into *four* constituents in a very strong magnetic field, those marked *b* into triplets, those marked *c* into doublets (Purvis, *Proc. Cambridge Phil. Soc.*, xiii. p. 322).





U. C. BERKELEY LIBRARIES



C051763611

QC453

W3

APPS

Watts

176360

Apx 3

